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Modern

LITHOGRAPHY



Printing Industry of America
Los Angeles, Oct. 30-Nov. 2

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Linotype Leads the Typographic Field



The reason—*unmatched typographic resources!*

Consider Rudolph Ruzicka, for example, the distinguished American designer who has produced such modern faces as Fairfield Medium and Primer.

Mr. Ruzicka is rated among America's most impressive talents, and his work is available to Linotype whenever the occasion arises for developing contemporary type faces or creating new ones. That's the integrity of Linotype's basic approach to typographic

development. Find the right man! Utilize the outstanding individuals . . . the best in the field!

The results of this approach have been impressive, as Linotype faces have consistently won the majority of awards in Ayer contests and graphic arts shows. For example, in the recent A.I.G.A. Fifty Books Exhibition, 32 of the volumes were Linotype-set. And Linotype has sustained that average over the years.

Rely on Linotype—first in typographic resources!



"Ruzicka's types possess the intrinsic qualities of fine letter forms so characteristic of 'classic' type faces. But to my knowledge he has never slavishly imitated the work of other designers. Fairfield and Primer, I believe, can always be specified where legibility, readability, and distinguished type design are vital."

FRANK E. POWERS, Type Director,
J. Walter Thompson Company

Mergenthaler Linotype Company, 29 Ryerson Street, Brooklyn 5, N. Y.

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Agencies: Atlanta, Boston, Chicago, Cleveland, Dallas, Los Angeles, New York, San Francisco. **In Canada:** Canadian Linotype, Limited, Toronto, Ontario

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July 23, 1956

Mr. Harry G. Willnus, President
Intertype Corporation
360 Furman Street
Brooklyn 1, New York

Dear Mr. Willnus:

As I look out the window, I can see them unloading our fourth Fotosetter.

It's another milestone in the growth and prosperity of our photocomposition business.

We started with our first Fotosetter five years ago. Our photographic typesetting operation, which is now known as Typo Photo-Composition, Inc., has proven to be a very well chosen and profitable enterprise. At the present rate of growth it probably won't be too long before we'll need a fifth machine.

Our hot metal business has grown too, thanks in great part to photocomposition which has brought us new customers and the opportunity of providing everyone with better and more complete composition services.

Without the Fotosetter machines and the splendid service your organization has given us, we couldn't have grown as we have in business volume and profits.

Cordially,

Sam Dalton
TYPOGRAPHIC SERVICE, INC.

Samuel A. Dalton
President

SAD:jf

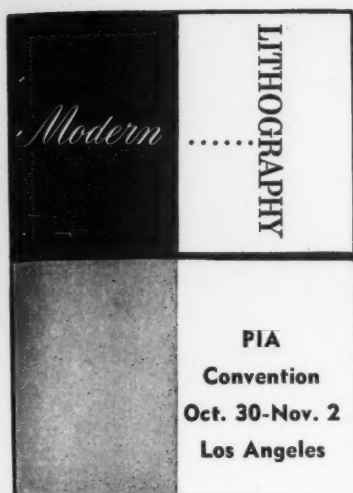
*If it isn't made by
Intertype it isn't
a FOTOSETTER*



Fotosetter is a registered trademark
Fotosetter Century Schoolbook and Futura Extrabold

INTERTYPE CORPORATION

360 Furman Street, Brooklyn 1, New York
Chicago, San Francisco, Los Angeles, New Orleans, Boston • In Canada: Toronto
Type Foundry Co., Ltd., Toronto, Montreal, Winnipeg, Vancouver, Halifax



COVER

Printers and lithographers will have another chance to see the sights in Los Angeles and vicinity late this month when PIA holds its annual convention Oct. 30—Nov. 2 in the California city. A number of the talks will touch on lithographic problems. See page 54.

WAYNE E. DORLAND
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FRANK T. HUMMLER
Associate Editor

RALPH DORLAND
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MODERN LITHOGRAPHY

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OCTOBER, 1956

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June 14, 1956

The Consolidated International
1112 N. Roman Ave.,
Chicago 51, Ills.

Attn: C. J. Meyers

Dear Miss Meyers :

After much delay we thought it would be a good idea to write to you and express our complete satisfaction in the Consolidated Pearl. We have been going to do this for some time because we feel that the Pearl is one of the most versatile offset presses on the market.

We have been using the offset process for ten years and never before have we had such sharp halftone reproduction. The Pearl Offset press is truly a pressman's press, this was demonstrated to us by the fact that our apprentice who has had only six months previous experience, has had no trouble in learning to run the Consolidated Pearl.

Enclosed please find copy of a national publication and on page 10 you will see a picture of our press doing a job that took National Honors for our customer. Also enclosed please find one of the prints used to complete the story submitted by our customer to their home office.

Sincerely yours
THE ASHBAUGH PRINTING CO.
John H. Ashbaugh, Jr.

P. S. Besides all this, we are very happy with your service.

LITHOGRAPHY

LITHOGRAPHY SINCE 1880



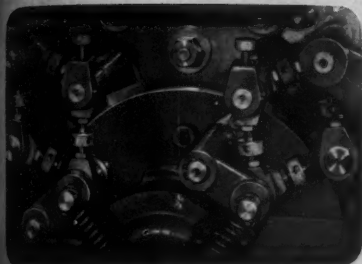
The world's finest equipment for Offset, Letterpress and Gravure

See pages 16, 17, 30, 31, and read what plant owners are saying about Swiss Wonder Press — The Consolidated Pearl

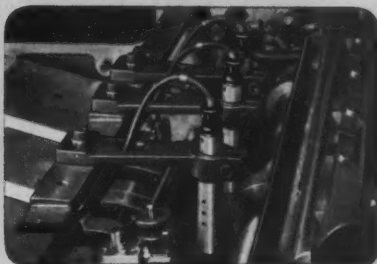
THIS LETTER
SPEAKS FOR
ITSELF!

THE CONSOLIDATED PEARL OFFSET PRESS

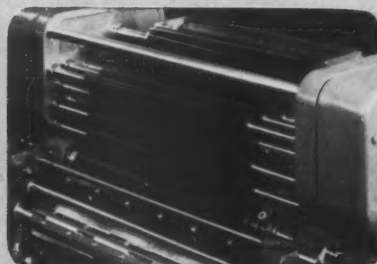
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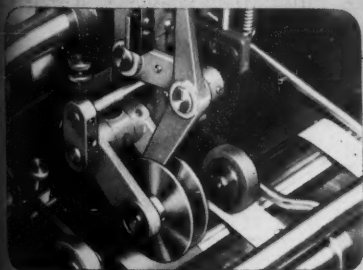
The Consolidated Swiss built Pearl Offset Press has been approved and accepted by the Graphic Arts Industry as the finest Press in its size class. With hundreds of installations all over the world, every Press is producing its maximum in quality, in speed, and in overall performance !

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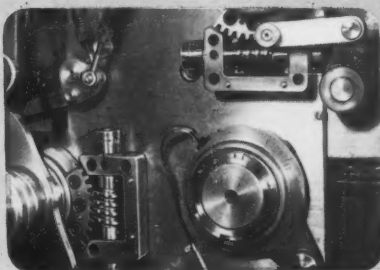
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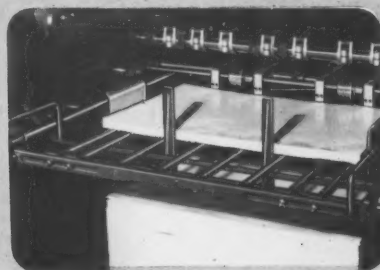
NOW
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ELECTRIC PAPER FEED CONTROL
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Accurate, predetermined settings



NON-STOP DELIVERY permits unloading at full speed

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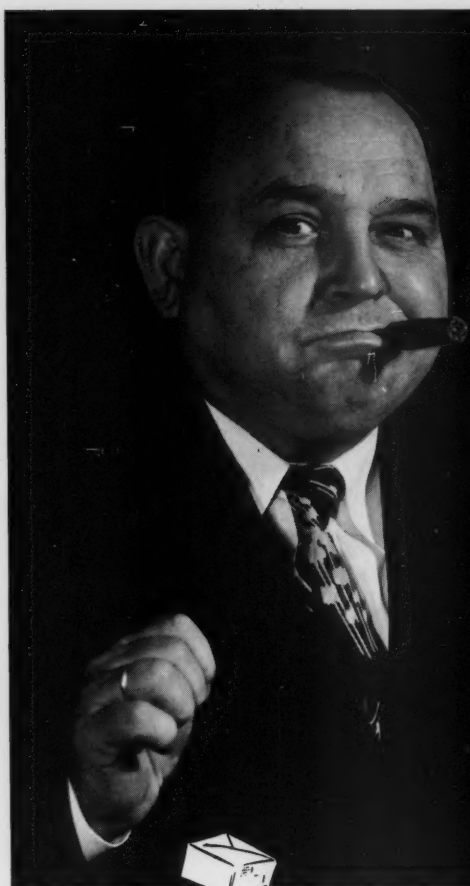
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with

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PLASTIC DEEP ETCH LACQUER

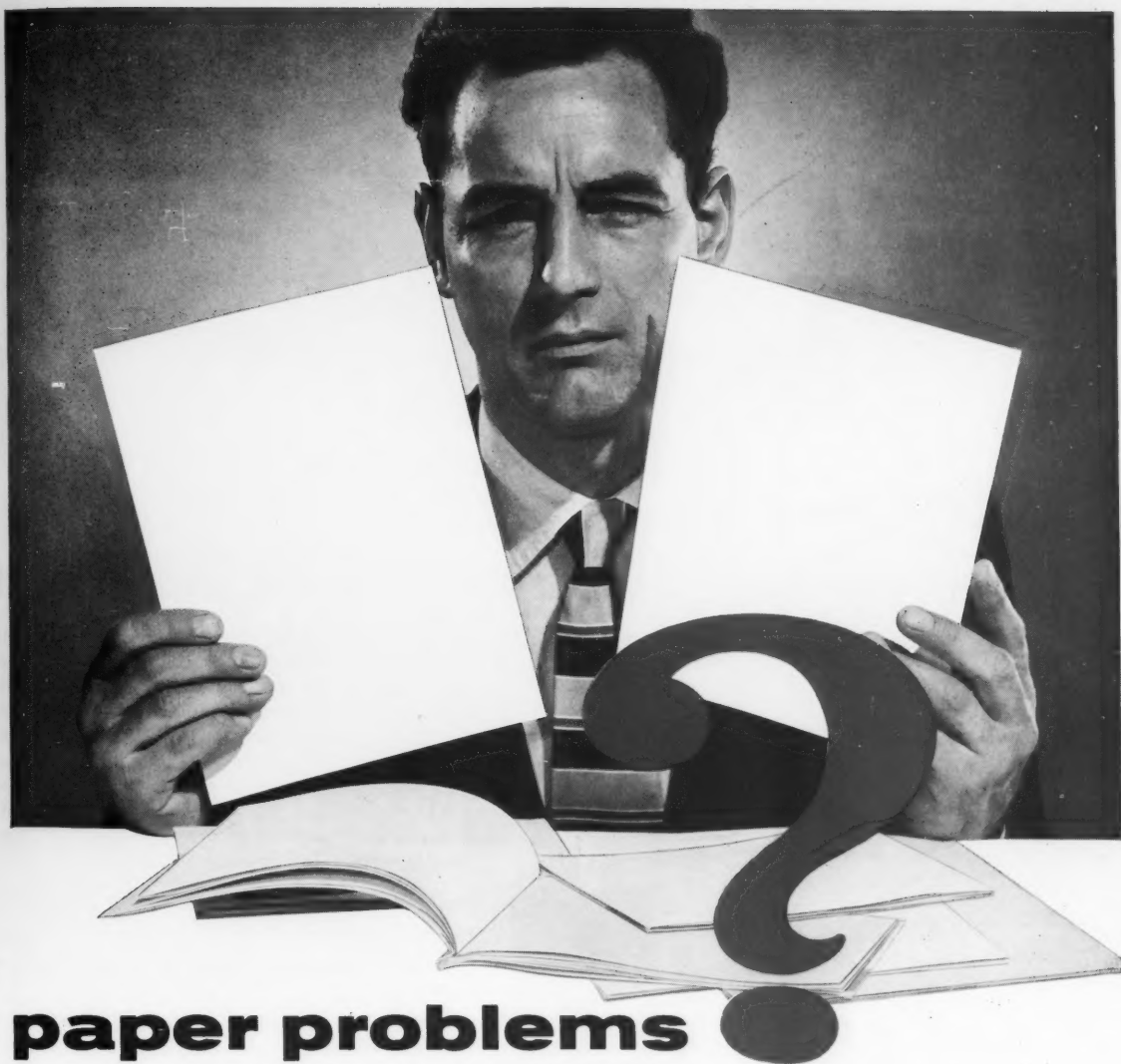
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LITTLE BENJY 1 STEP WASH-UP SOLVENT

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Your Nekoosa paper merchant is always ready to serve you in every way he can. Ask him to come in... *soon!*



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PAPER MERCHANT
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SENSITIZED PLATES AND SUPPLIES

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*performance-proven
the top combination
for surface plates*



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- **#38 DEVELOPING INK** — to protect the lacquer image with a highly etch-resistant, ink-receptive film



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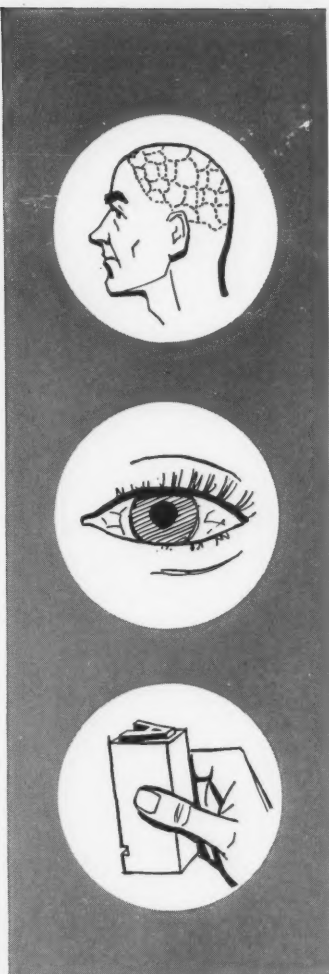


PRINTING



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Position your sales message at right angles to store traffic!
- **LABELS**
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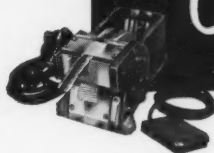
...and



Here's the

"smart way" to attract attention to any man's product and make him an eager buyer of printed point-of-purchase advertising. KLEEN-STIK—the moistureless, self-sticking adhesive—does just that! It's a sure way to make dealers want and use many types of P.O.P. materials that help advertisers get the edge over competition.

Suggest KLEEN-STIK's unique advantages . . . show the KLEEN-STIK IDEA KIT of practical samples . . . and see how easy it is to get extra business with KLEEN-STIK!



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and delivered to the
Post Office in 4 HOURS !**

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"The Pearl's greatest asset to us," says Walter Auch of Glenside, Pa., "is its sheer dependability for uninterrupted, trouble-free output from start to finish."

Where the requirements are stiff, schedules are inflexible and waste must be held to a bare minimum, there is where the new Pearl "25" comes into its own

We receive similar endorsements from every part of the country, daily, all of which establish the new Pearl as the Press of the Year for 1956.



The world's finest equipment for Offset, Letterpress and Gravure

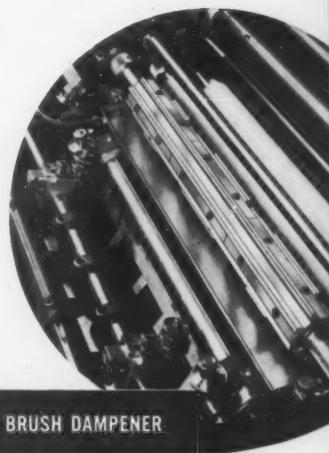
sales of "The Consolidated Pearl" in the Philadelphia area are handled by the

Foster Printing Machinery Company . . . 13th and Cherry, Philadelphia 7, Pa. Locust 8-2166

COMPARE THESE 12 OUTSTANDING FEATURES

with any other press in its size range !

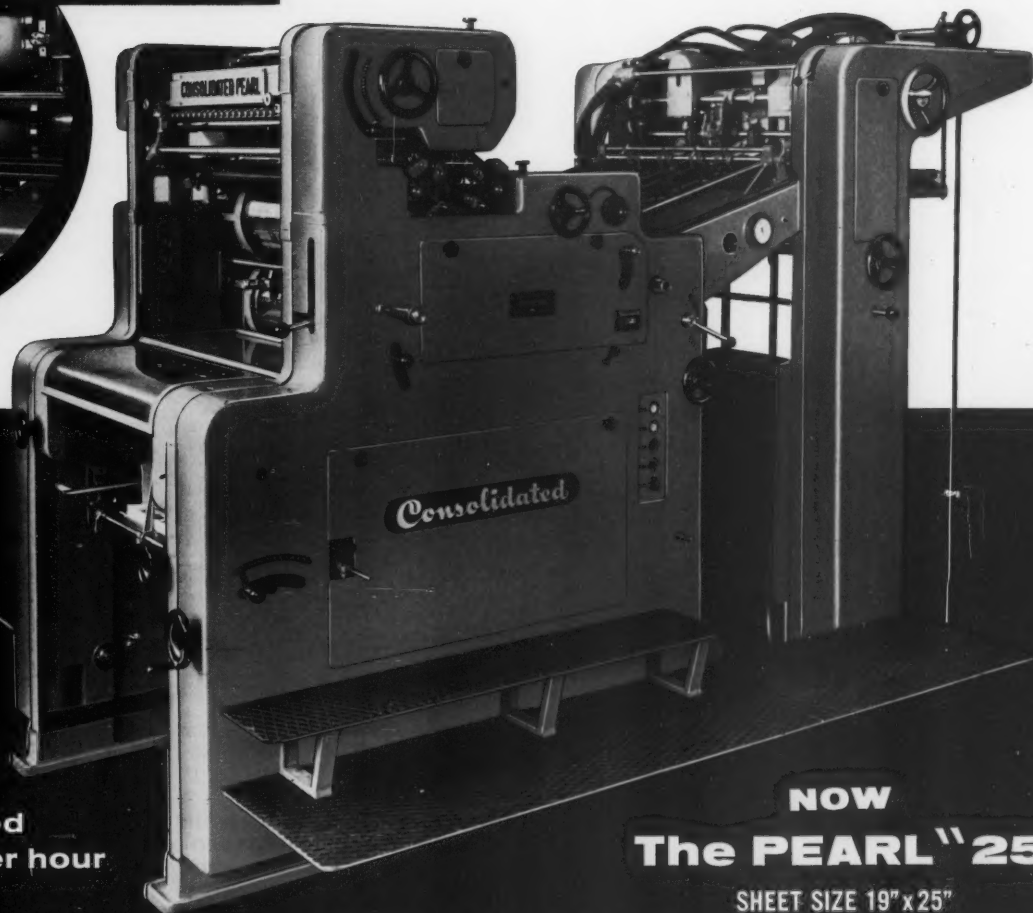
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Easily accessible from outside
- 2 **NYLON BRUSH DAMPENER**
for controlled, trouble-free dampening
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Accurate, predetermined settings
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- 11 **EASY ACCESS TO PLATE** and blanket enables quicker makeready
- 12 **NON-STOP DELIVERY** permits unloading at full speed



NYLON BRUSH DAMPENER



EASY ACCESS TO PLATE



8000
Perfectly
Registered
sheets per hour

NOW
The PEARL "25"
SHEET SIZE 19" x 25"

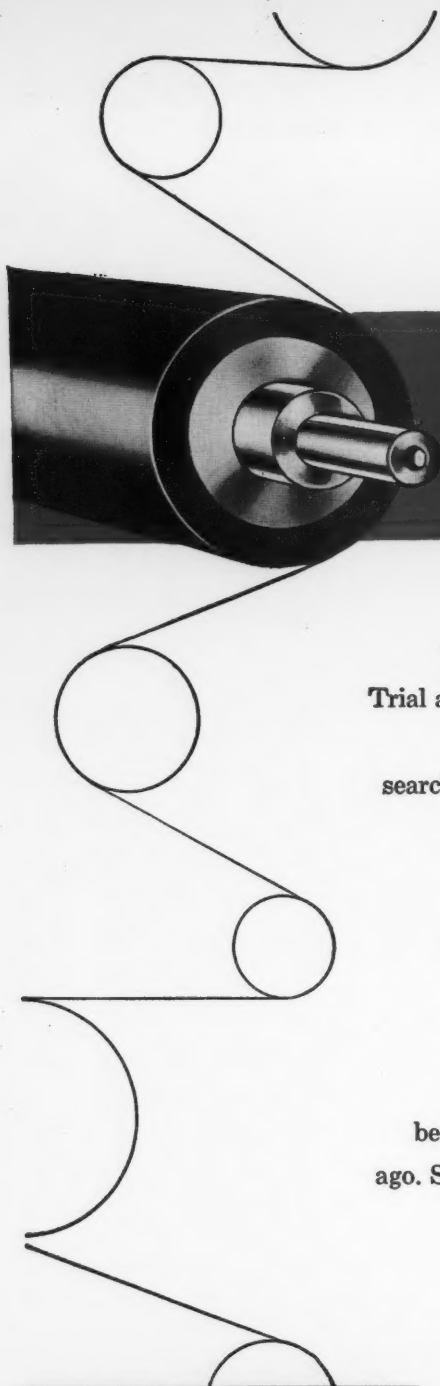
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EXTRON STORY!



The Right Roller right away



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Home Office
CHICAGO

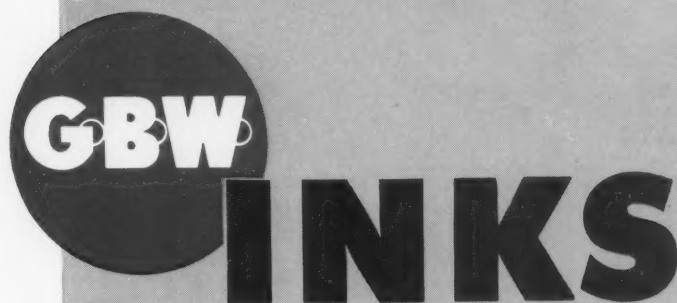
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for Over a Century*



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- ★ Metal Decorating ★ Litho Chemicals
- ★ Die Stamping Inks

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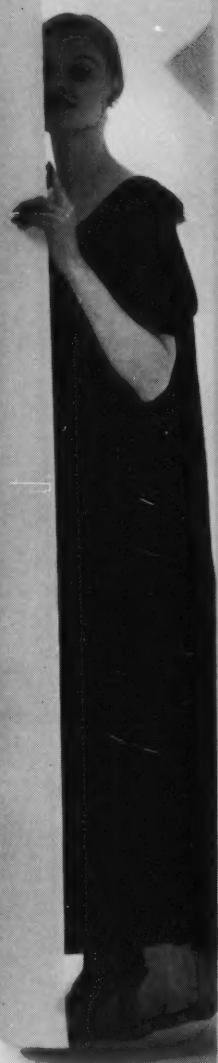
Join the leading printers and lithographers everywhere who have found greater satisfaction in putting GBW's 100 years to work for them . . . profitably!
Try the Ink that *Means Business!*

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**Everything comes to life
on Kimberly-Clark Papers**

for Modern Lithography . . . Prentice Offset Enamel
Lithofect Offset Enamel • Shorewood Coated Offset
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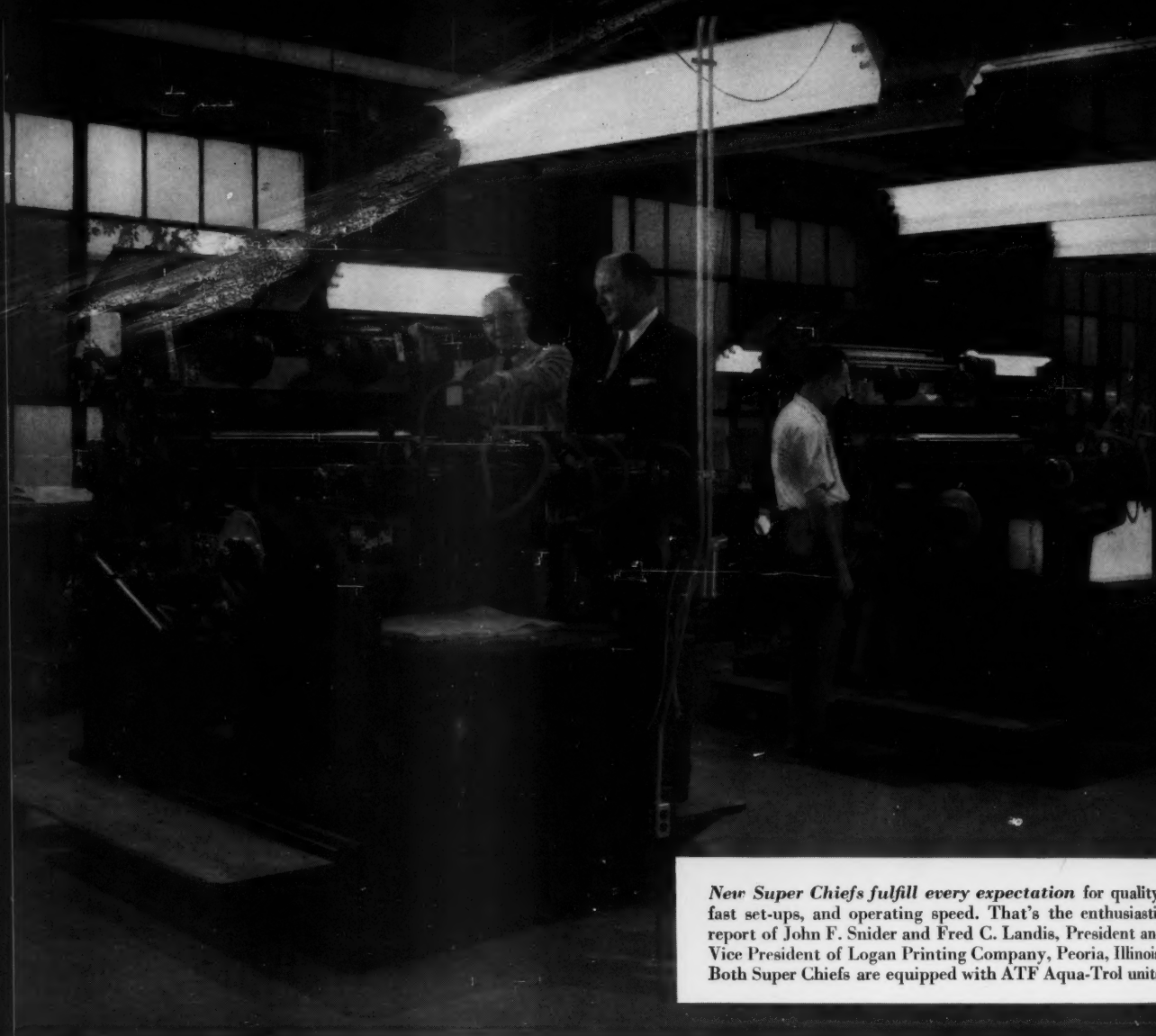
for Modern Letterpress . . . Hifect Enamel • Crandon
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Kimberly Clark

COATED PRINTING PAPERS



Kimberly-Clark Corporation • Neenah, Wisconsin



New Super Chiefs fulfill every expectation for quality, fast set-ups, and operating speed. That's the enthusiastic report of John F. Snider and Fred C. Landis, President and Vice President of Logan Printing Company, Peoria, Illinois. Both Super Chiefs are equipped with ATF Aqua-Trol units.

profits can be made and lost while presses are standing still

Stands to reason. Faster set-ups cut costly non-productive hours, boost daily output, increase profits all along the line.

That's why it's of dollars-and-cents concern to you that the ATF Super Chief has the jump on any other press in its class when it comes to fast set-up and whirlwind changeovers. *It will pay you to find out why.*

And that's only one of the many superiorities that makes the ATF Super Chief the most productive in its class...the easiest and most economical to run...the most versatile...and the offset press whose quality work is already the talk of the industry. *It will pay you to check on its superior operating features.*

A long list of leading printers will testify to the ATF

Super Chief's profit-producing features—fast set-up time, 2800 to 7000 iph, numerous automatic operations and beautiful work.

It will pay you to check with your ATF representative. He'll be glad to discuss the Super Chief's earning advantages with you. Or write direct for further information.



AMERICAN TYPE FOUNDERS

200 Elmora Avenue, Elizabeth, N. J.

better, more profitable printing...from the most complete line of equipment

Service Down Through The Years...



Wm J Keller Inc

PENN R. WATSON, PRESIDENT

PRINTERS AND PHOTOGRAPHERS OF COLORFUL DESIGNS

33 CLARENCE AVENUE • BUFFALO 15, NEW YORK • UN 6600

August 27, 1956

Mr. Walter E. Soderstrom
Executive Vice-President
National Association of Photo-Lithographers
317 West 45th Street
New York 36, New York

Dear Walter:

Replying to your inquiry -- we joined the Association in 1934. I have long wanted to write a letter of appreciation for the wonderful support we have received over the years, from the Association.

You probably won't remember but we started with a Roto-print and thus became the first combination shop in western New York. In about a year, we decided that if we were to really get into the lithographic field, we needed larger equipment so we really plunged and bought a 17 x 22 Harris. Today we have seven presses, single and two color and 85% of our business is lithography.

I want to take this opportunity to acknowledge the great help we have received from the NAPL and from you personally. In the old days, we certainly leaned on you heavily. The hours you so generously gave to help solve our problems, advice on materials, equipment, labor, sales -- in fact the whole gamut of the lithographic field.

Your sympathetic understanding, your enthusiastic cooperation and apparent sincere desire to be helpful at all times over our nearly twenty-five years of membership in the NAPL has been most valuable and appreciated. We hope that over the years, we too have contributed in some small way, to the Association, in repayment.

Walter, we salute you as the man of the year of the graphic arts' secretaries.

Sincerely,

WM. J. KELLER INC.

PRESIDENT

PRW,SR:G

National Association of Photo-Lithographers

317 W. 45th St., New York 36, N.Y. Write for new brochure on membership in NAPL

ARCTIC WHITE

in all these ELEVEN For Real



FOX RIVER BOND

FOX RIVER OPAQUE



ENGLISH BOND

NATIONAL BANK BOND

ANNIVERSARY BOND

FOX RIVER ONION SKIN

FOX RIVER OPAQUE ONION SKIN

ANNIVERSARY ONION SKIN

ANNIVERSARY VELLUM

ANNIVERSARY BRISTOL

ANNIVERSARY THIN CARD

your new jobs expect it...

your re-runs deserve it.



FINE COTTON PAPERS

Fox River

Printed specimens have always helped "sell". Now they sell better... because Fox River has them on sensational Arctic White... packaged in this attractive kit that top-flight executives will look at, and appreciate.

Go as high as you like with these fine cotton papers. Check us, will you, please? Get your kit... write...

FOX RIVER PAPER CORP.,
Appleton, Wis.

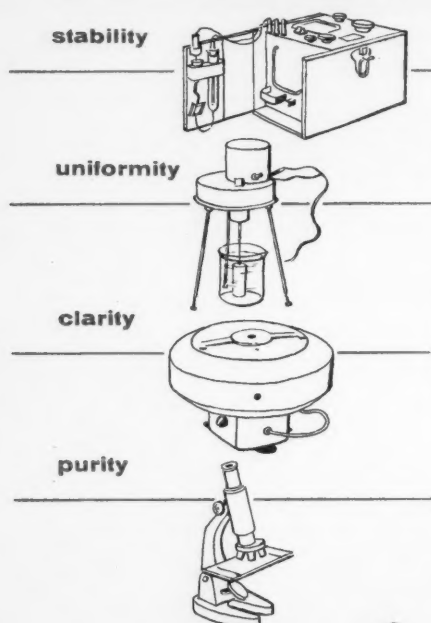
GP DEEP ETCH COATING SOLUTION

AND ASSOCIATED CHEMICALS
FOR LITHOGRAPHIC PLATEMAKING



"Laboratory Quality Controlled"

**DEEP ETCH CHEMICALS
OFFER YOU SO MUCH MORE FOR SO LITTLE**



"Controlled Quality" is much more than just making a good product, it means every batch is controlled to precise measurements, assuring you of consistent quality in your Offset Deep Etch plates. Our technicians working in a Modern Production Laboratory build into every batch of solutions "Laboratory Quality Control." Using the finest raw materials to start with, JGP Deep Etch Coating is processed to give you the finest for Deep Etch plate making.

a complete *Introductory Kit*
available at a modest price.

Order from your JGP Dealer today!



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W. E. Booth Company, Ltd.
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JONES GRAPHIC PRODUCTS COMPANY

320 BROADWAY, S. E., ALBUQUERQUE, NEW MEXICO • 720 VINTON STREET, TOLEDO 4, OHIO

The surest way to more printing production profits is to increase output of your present equipment without sacrifice in quality. And, if you can improve quality at the same time, you are competition and hard to beat!

ANNOUNCING

THE NEW, REVOLUTIONARY OXY-DRY SHEET CLEANER

You **BUY MORE PROFITS** when you purchase the OXY-DRY SHEET CLEANER. Actual tests* show that your presses will deliver about 5% more impressions per hour, you'll stop the presses for wash-up about 12 times less per shift, save about 100 press sheets and the ink wasted in restarting after washups. This means that inside one year the OXY-DRY SHEET CLEANER will pay for itself...after that, it's all profits for you. Maintenance, repair and service will be negligible...the equipment is engineered to last the life of the press.

The OXY-DRY SHEET CLEANER is the only sheet cleaner that uses both air and suction ★ Operates within $\frac{1}{8}$ " of

sheet for positive consistent cleaning action ★ Improves register control ★ Dry spray can be used every time sheet goes through the press ★ Can be installed in two hours on either web or sheet fed presses ★ Flexible—one vacuum-blower differential unit can be moved from press to press to operate any OXY-DRY cleaner head in your plant ★ Successful installations have been made in Meredith Publishing Co., Kable Bros., Popular Mechanics and other leading printing plants where speed and quality are constant aims...Increased profits they are getting can be yours too ★ To get more information on OXY-DRY SHEET CLEANERS, write, wire or phone us now.

* 5 Color Cottrell 36" x 48"—Sheet Fed
More details on request

Patents granted and Pending
Copyright 1956



*means more profits for the
graphic arts industry*

OXY-DRY SHEET CLEANER CORPORATION

1134 West Montrose Avenue, Dept. ML, Chicago 13, Illinois

NEW YORK

CHICAGO

SAN FRANCISCO

Photo below shows close-ups of the OXY-DRY SHEET CLEANER vacuum-blower head and head face.

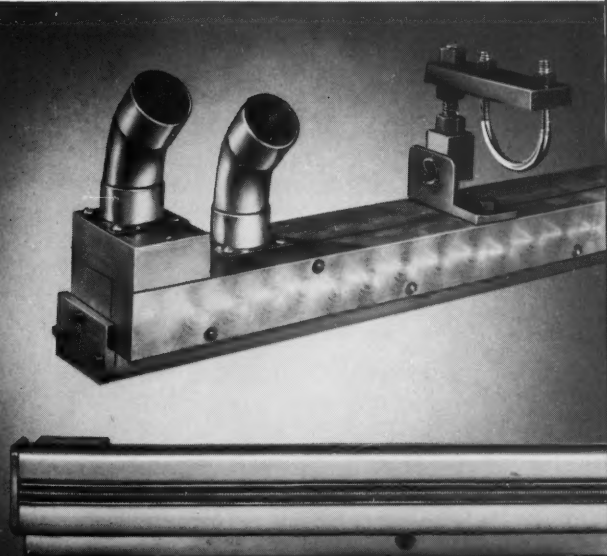
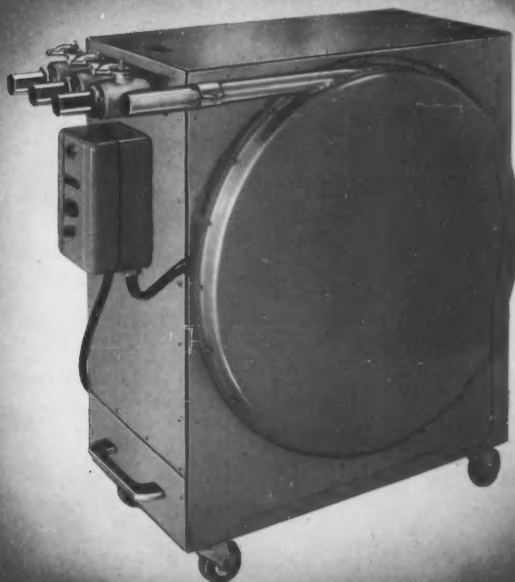


Photo below shows the vacuum-blower differential unit for the OXY-DRY SHEET CLEANER



In This Issue

● *Record-Breaking* attendance, an excellent program and lots of activity in the exhibit area were the noteworthy features of the NAPL convention last month in the Hotel Commodore, New York. ML attended every session, including the four concurrent round

table discussions. General convention coverage with photos starts on *page 46*. Round table reports may be found on succeeding pages. In addition, a full report on the panel on presentized plates appears on *page 59*, and a similar report on the Saturday

Technical Session is on *page 73*.

● *Lithography* has made big gains, while letterpress and gravure have not fared nearly so well in the years from 1947-54, according to a preliminary census report on printing machinery. Details on *page 53*.

● *Another big* West Coast convention this month. This time it's PIA, which will meet in Los Angeles Oct. 30—Nov. 2. *Page 54*.

● *Much has* been said about the Government Printing Office and the fine job being done by Raymond Blattenberger. ML was privileged to visit with the Public Printer at the G.P.O. to get a first hand account. The picture story starts on *Page 56*.

● *There always* is big interest in floor plans for offset shops. Drawings of three typical layouts are shown in this issue on *page 60*.

● *Bernard Sears* tells what's new in lithographic platemaking, *page 62*.

● *ML Visits* LTF, with a camera, *page 67*.

● Die cutting can be done by you right in your own shop . . . if you know how. Basil M. Parsons outlines the process, step by step in the feature on *page 81*.

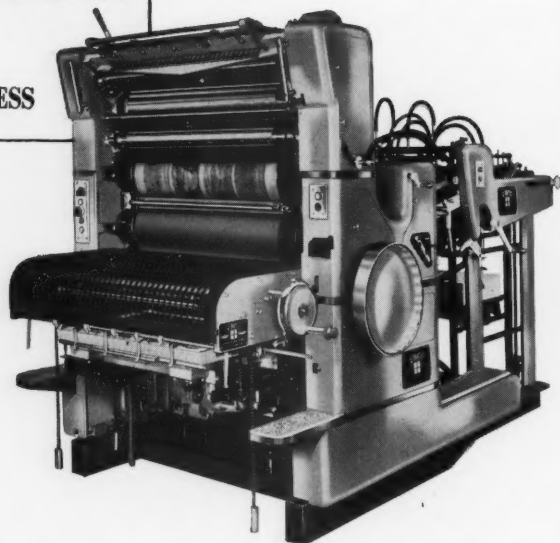
Easy
to
operate

Ease of operation is equally important to the pressman, who runs the press, and the owner, whose profit depends upon its productivity. The Miller-E.B.CO 22x34 Offset Press is designed to simplify the pressman's work, and thereby increase the owner's profit. Write for our catalog describing the time and labor saving features of this productive press.

MILLER-E.B.CO

22 x 34

OFFSET PRESS



miller

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730 Bay St., Toronto 2, Ontario

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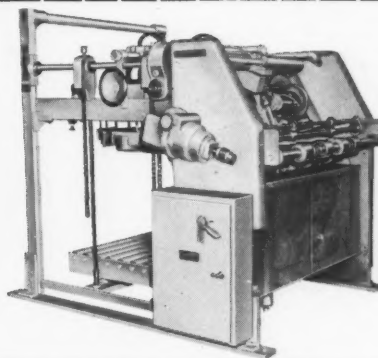
Machinery, built to do
more jobs... better!

DEXTER METAL SHEET FEEDERS

Continuously and automatically separate, caliper and advance metal sheets from a pile to the registering station of coater or press, at speeds up to 150 sheets per minute.

Built in a wide range of models to handle all standard sizes and weights... and for attachment to all standard machines.

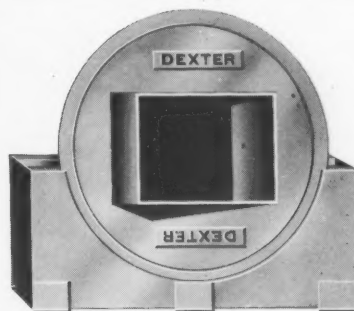
Ask for reprints of magazine articles discussing the features and economies of these feeders.



METAL SHEET PACK TURNOVER

Sheets delivered face down from the drying oven are trucked on skid into the turnover. A second skid is placed on top of pile and a half revolution of the turnover brings pile of sheets to face up position, resting on the second skid.

No clamping of piles. Built in two sizes, for handling sheets up to 36 x 36" and up to 36 x 44". Minimum size sheet is 16 x 16". Maximum load is 6,000 lbs. Sheets of any thickness can be handled. Pile is squared in both directions into box during turning process. Takes approximately 20 seconds.

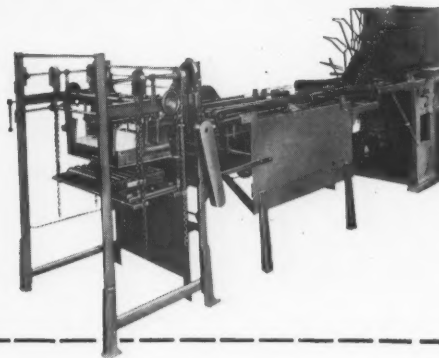


OVEN END STRIPPER

Automatically removes lithographed or coated sheets from the wickets at the discharge end of the drying oven, without manual assistance.

Built in a wide range of models to handle all standard sizes of metal sheets, with pile capacities and speeds equal to the feeder being used.

Unit delivers to Dexter Pile Delivery without scratching or damage.



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General Sales Office

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ILLUSTRATED CIRCULARS ARE AVAILABLE
FOR ANY OF THE ABOVE MACHINES



3259

in the West..



TOM RODEN OF RODEN PRINTING & LITHO OF LOS ANGELES, at right, points with pride to the Consolidated Pearl feeder as it is printing at the high speed of 8,000 sheets an hour. To his left are, John Fazio, pressroom foreman, William La Hecka, Vice President of Western Sales for Consolidated, and Zeno Jacquat, Consolidated's Swiss press erector.

Roden Printing, like many other Consolidated purchasers, are buying two at a time. They say if one is good, two are twice as good. This has proven itself over and over again in scores of twin installations, all over the world. We say, "If one Pearl is good, two of them are three times as good." At least you

can get the jobs on and off the presses three times as fast so don't be satisfied with ordering just one Pearl Press — order the Consolidated Pearl Twins. They can make more than twice as much money for you, produce better work, and give your customer better service.

READ WHAT OTHER USERS ARE SAYING ON PAGE 8, 16



The world's finest equipment for Offset, Letterpress and Gravure.

PROCESS FILM...PROCESS CAMERAS...PRINTING FRAMES...OFFSET PRESSES...R.P.M. PAPER CUTTERS
WEB-FED GRAVURE...ENGRAV-A-PLATE MACHINES...MULTINEG STEP & REPEAT MACHINE...VERTICOTE MACHINES
LETTER PRESSES...OFFSET PROOF PRESSES...SHEET-FED GRAVURE...METAL-COATING PRESSES...LAYOUT TABLES

THE CONSOLIDATED PEARL OFFSET PRESS



19"x25"
SHEET SIZE

8000
sheets
per hour

THE CONSOLIDATED PEARL, ACCLAIMED THE PRESSMEN'S PRESS . . .

designed for quick changes, continuous running, exacting register, complete coverage, and all this with a non-stop feature that enables you to print continuously at speeds up to 8,000 sheets an hour without stopping. The photronic control guarantees that each sheet is in perfect register at this high speed. The new nylon dampening mechanism offers infinite water control. For a press in the 19"x25" size that prints better than any offset press in the field today, your choice should be the Consolidated Pearl Offset Press.

FULL COVERAGE INKING with four large form rollers of varying diameters

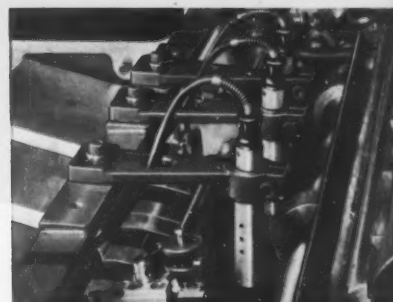
MICROMETER CYLINDER ADJUSTMENT
Accurate, predetermined settings

NON-STOP DELIVERY permits unloading at full speed

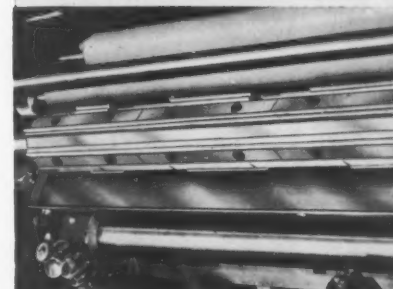
EASY ACCESS TO PLATE and blanket enables quicker makeready

POSITIVE STREAM FEEDER—trouble-free from onion skin to heavy cardboards

MICROMETER GRIPPER ADJUSTMENT
side guide settings outside the press



PHOTRONIC SHEET CONTROL optically checks the sheet to register guides



NYLON BRUSH DAMPENER
for controlled, trouble-free dampening

CONSOLIDATED INTERNATIONAL

**EQUIPMENT AND
SUPPLY COMPANY**

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6 reasons for UNIPROCESS praise

In the brief time that UNIPROCESS plates and chemicals have been available to lithographers, this unique plate-making method has been enthusiastically accepted by a steadily growing number of plants throughout the country.

Read these six specific reasons why:

- 1 You get better quality offset printing at no extra expense and no change in fundamental platemaking or pressroom methods.
- 2 This improved quality is available in *all* press sizes.
- 3 Results are uniformly good. You use a new, perfectly grained plate each time.
- 4 UNIPLATES work equally well whether used as surface plates or as deep etch plates.
- 5 UNIPROCESS platemaking chemicals are precisely formulated for use with Uniplates. They are convenient, economical and uniformly high in quality.
- 6 Same day shipment from Pitman stocks means it is no longer necessary to carry a large plate inventory.

Learn firsthand why lithographers are praising UNIPROCESS ...
write or phone the nearest Pitman office for complete information.

UNIPROCESS plates and chemicals are distributed exclusively by

HAROLD M. PITMAN COMPANY

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Secaucus, New Jersey — 515 Secaucus Road
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Something New



95th ANNIVERSARY

The familiar trademark of Fitchburg Paper Company is wearing a new badge this year. It denotes this company's 95th Anniversary of making fine papers.

During the years we have grown in experience, in reputation, and in size. Some of our customers have been with us almost since the mill started. They like the papers we make and say we are a good mill to do business with.

If you use paper in substantial amounts, we can prove both points to you, as well.

Fitchburg Paper Company

MILLS AND GENERAL OFFICES: FITCHBURG 6, MASS.

NEW YORK OFFICE: 250 PARK AVE., N.Y. 17

They SPEAK
for THEMSELVES



I am **AQUATEX**

A specially treated looped-textured fabric with a smooth even surface (*no seams*) allowing an even distribution of fountain solution over the entire surface of the dampening roller. My tailor-made feature (*a size for every press*) and two way stretch action insure a glove-like fit preventing wrinkles or twists eliminating dry areas or fill-ins.

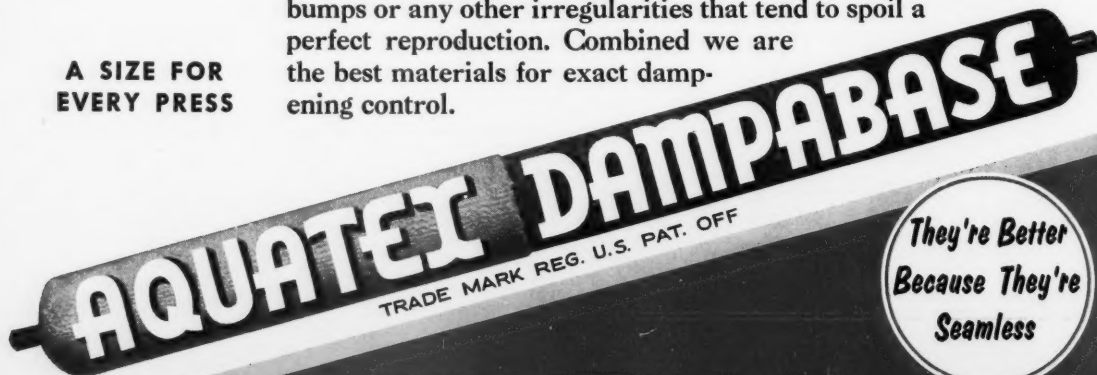
Don't let my smooth soft texture fool you, for I am tough . . . tough enough to take the long hard wear of high speed equipment.



I am **DAMPABASE**

Like my team-mate Aquatex I am a specially treated loop fabric with springy texture that prevents matting and allows just the right cushion to be the perfect reservoir. I retain and feed an even flow of moisture to Aquatex, the outer covering. We . . . Aquatex and Dampabase are free of seams, wrinkles, bumps or any other irregularities that tend to spoil a perfect reproduction. Combined we are the best materials for exact dampening control.

**A SIZE FOR
EVERY PRESS**



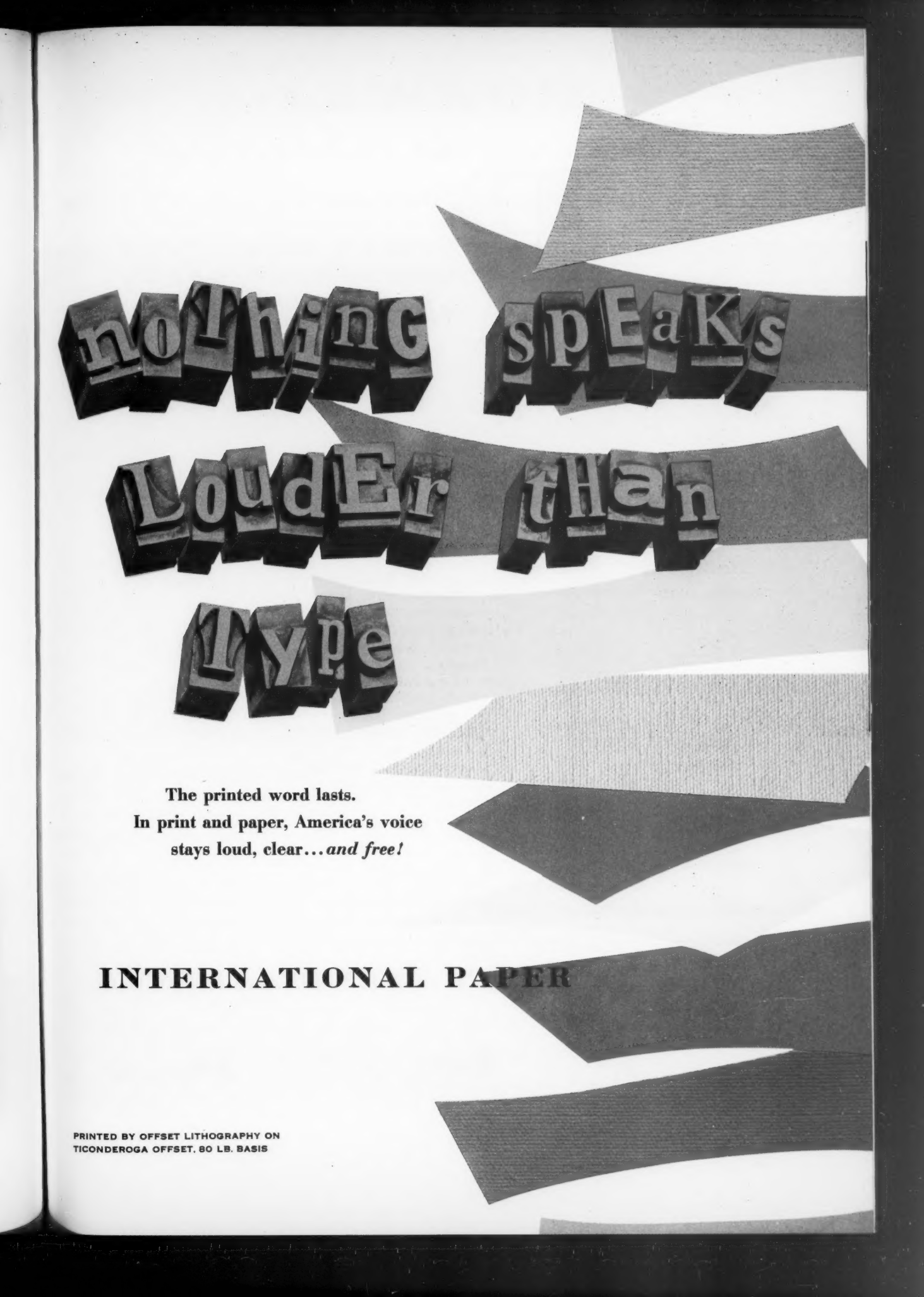
*They're Better
Because They're
Seamless*

GODFREY ROLLER CO.

Roller Makers for 91 Years

211-21 NORTH CAMAC STREET

PHILADELPHIA 7, PA.

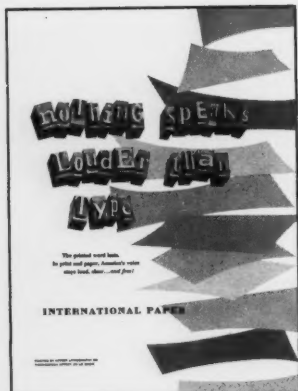
The background of the advertisement is a collage of torn paper and geometric shapes. Large, dark, angular shapes resembling torn pieces of paper or cardboard are layered over a lighter background. The text is arranged in a way that interacts with these shapes, with some letters appearing to be on the paper and others appearing to be on the dark shapes.

nothing speaks Louder than Type

The printed word lasts.
In print and paper, America's voice
stays loud, clear...and free!

INTERNATIONAL PAPER

PRINTED BY OFFSET LITHOGRAPHY ON
TICONDEROGA OFFSET, 80 LB. BASIS



*Other fine quality Mill Brand
printing papers by International*

TICONDEROGA OFFSET

A PROVEN OFFSET PAPER IN A
NEW, SPARKLING BLUE-WHITE

Press performance and fine appearance have always characterized Ticonderoga Offset, favorite with lithographers and paper buyers. Now in a new improved blue-white to further enhance faithful reproduction, Ticonderoga Offset gives plus value . . . at low cost. In standard sizes and five weights, sold by leading paper merchants. Six fancy finishes to order.

ADIRONDACK BOND
ADIRONDACK LEDGER
BEESWING MANIFOLD
INTERNATIONAL DUPLICATOR PAPER
INTERNATIONAL MIMEO SCRIPT
INTERNATIONAL TI-OPAQUE
INTERNATIONAL OFFSET
SPRINGHILL INDEX
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TICONDEROGA BOOK
TICONDEROGA TEXT
TICONDEROGA TEXT, Coverweight
LOUISIANA COLORED TAG
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HUDSON GLOSS
HUDSON BOOK
HUDSON COVER, C1S
HUDSON LABEL, C1S
HUDSON LITHO, C1S
CHAMPLAIN COVER, C1S
CHAMPLAIN LABEL, C1S
CHAMPLAIN LITHO, C1S
EMPIRE BOOK
WINN BOOK also CONVERTING PAPERS

Printed by offset lithography on
Ticonderoga Offset, Basis 80.


International Paper COMPANY
FINE PAPER AND BLEACHED BOARD DIVISION
220 East 42nd Street, New York 17, N. Y.

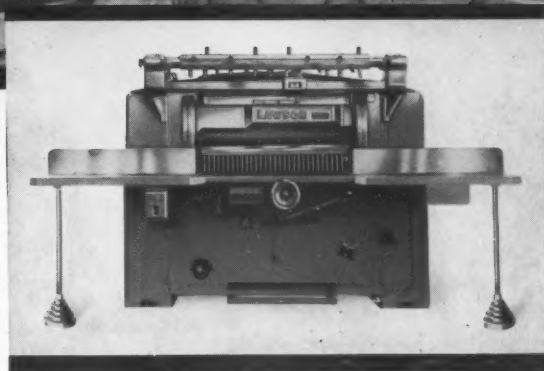
LAWSON

truly cushioned hydraulic clamping
won't mar top sheets, won't disturb alignment of lift



Here's visible scientific proof of the *truly cushioned* hydraulic clamping built into every Lawson Series V-65 Cutter. The graph of the Librascope recorder (above) shows how the clamp starts fast—slows down before contact to gently, but firmly, “kiss” the pile. Pressure is constant throughout.

Even without scientific instruments, you can make your own simple test of Lawson's *truly cushioned* hydraulic clamping action. Take any ordinary cutter, *without a lift of stock* in the machine, and put it through a complete cutting cycle. Hear that “Clang”...feel that jar and vibration! Now try the same thing on a new Lawson Series V-65. See how the hydraulic clamp just *kisses* the table—no jolt or shock—yet always with just-right clamping pressure. Here is *real cushioned clamping action!*



Lawson's efficient hydraulic clamping means rapid, exceptionally accurate paper cutting with less spoilage—more profits for you. Fact-filled, illustrated brochure on the new Lawson Series V-65 Hydraulic Clamp Cutter—46", 52", 55"—is yours for the asking. Write today.

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NEW BRILLIANCE WITH



LITHOGEM*

*IPI's HIGH COLOR-STRENGTH OFFSET LITHO INK

New IPI Lithogem colors are first choice with leading litho plants all over the world. These colors really sparkle, are just as brilliant when dry as when wet . . . and they stay press-ready and uniform in body and tack until used.

Lithogem inks are more foolproof on the press . . . set faster with excellent binding qualities. And they hate water, reduce greasing problems to a minimum to make colors stay cleaner, stronger.

Compare Lithogem with the best regular and process colors you are now using. Ask your IPI representative about Lithogem.

COMPLETE INK SERVICE FOR LITHOGRAPHERS

Lithographic plants of all sizes are invited to use IPI's complete ink service facilities in litho centers from coast to coast. Each local IPI service station and branch is staffed by local experienced ink men, well-seasoned in the special lithographic problems—large and small—of each locality. They are always on call to help you. For prompt ink service with a personal touch, contact IPI. Rely on IPI for leadership in ink research.

AMERICAN INDIAN ART

The artistic skill of the Zuni pueblo Indians, who lived in western New Mexico, is amply evident in such colorful designs as the painted shield shown here in IPI Lithogem colors. The Zuni, largest of the pueblo tribes, excelled in creative pursuits—weaving, pottery and basketry. They were noted for their elaborate ritualistic dances and festivals, and admired for their extreme devotion to their ancient religion. Unlike the Indians of the Plains, the Zuni were short and of darker complexion. They lived in flat-roofed stone houses, built in communal fashion, often of several terraces. Fortunately, enough of their culture has survived to create a glowing picture of the striking achievements of the Zuni.

IPI, IC and Lithogem are trademarks of Interchemical Corporation



Interchemical

C O R P O R A T I O N

PRINTING INK DIVISION • 67 W. 44th ST., N.Y.C.

NEW

First

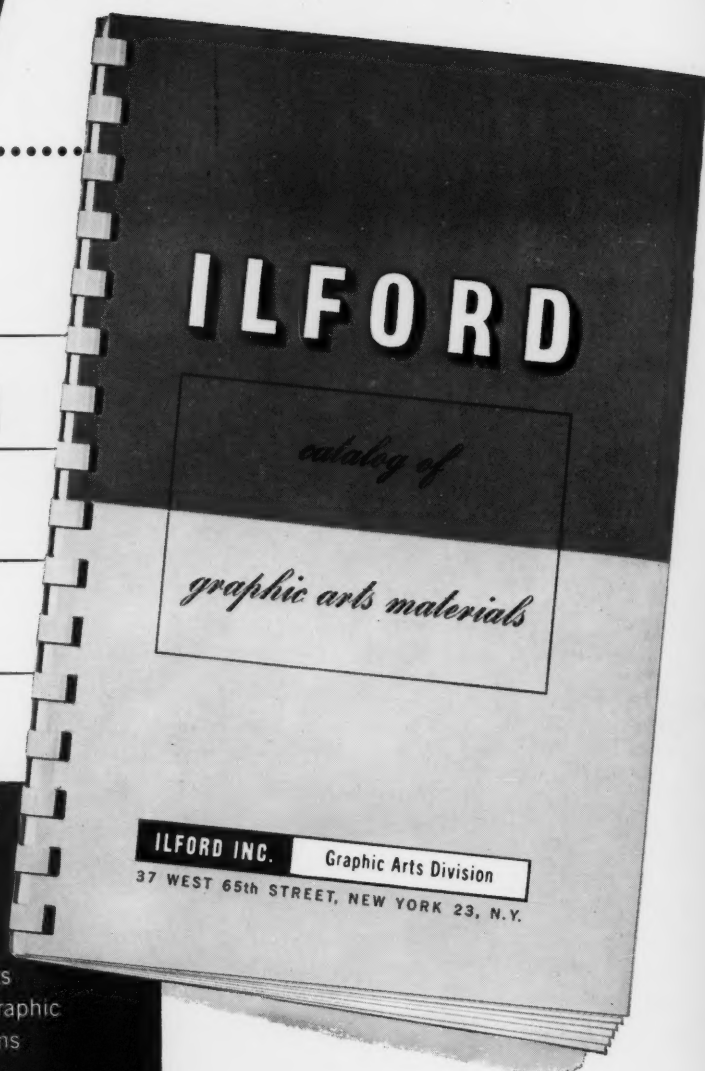
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available!

**44 Pages of Facts about
Ilford films and plates.**

The table of contents includes: • Ilford Graphic Arts Code • Relative Speeds of Graphic Arts Materials • Plates • Films • Recommended Techniques & Materials • Chemicals and Formulae • Darkroom Illumination



Get the complete story of ILFORD graphic arts materials

Whether you specialize in photoengraving, photolithography, rotogravure or silk screen printing, you will want a copy of this new Ilford Graphic Arts catalog.

It contains not only valuable advice and recommended techniques, but also full information on all Ilford Graphic Arts materials. You will need this book at your finger tips whenever you order your films, plates or chemicals. We will be pleased to send you a complimentary copy if you will write on your company letterhead.

ILFORD INC.

37 West 65th St., New York 23, N. Y.

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BRAND
CAST COATED PAPERS



THE CHAMPION PAPER AND FIBRE COMPANY • HAMILTON, OHIO

*Number Twenty-eight in a series of textural studies designed to show
the quality of reproduction possible with fine materials*



THESE LEADING PAPER MERCHANTS SELL THE FAMOUS CHAMPION BRANDS

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ARKANSAS
Little Rock..... Roach Paper Co.

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Savannah..... The Atlantic Paper Co.

IDAHO
Pocatello..... Carpenter Paper Co.

ILLINOIS
Chicago..... Bradner Smith & Co.
Dwight Brothers Paper Co.
Parker, Schmidt & Tucker Paper Co.
Charles W. Williams & Co.*
Decatur..... Decatur Paper House, Inc.
Peoria..... Peoria Paper House, Inc.
Quincy..... Irwin Paper Co.
Rock Island..... C. J. Duffey Paper Co.

INDIANA
Fort Wayne..... The Milcraft Paper Co.
Indianapolis..... Indiana Paper Co., Inc.

IOWA
Des Moines..... Carpenter Paper Co.
Pratt Paper Co.
Sioux City..... Carpenter Paper Co.

KANSAS
Topeka..... Carpenter Paper Co.
Wichita..... Southwest Paper Co.

KENTUCKY
Louisville..... The Rowland Paper Co., Inc.

LOUISIANA
New Orleans..... The D & W Paper Co., Inc.

MAINE
Augusta..... John Carter & Co., Inc.

MARYLAND
Baltimore..... Garrett-Buchanan Co.
The Whitaker Paper Co.

MASSACHUSETTS
Boston..... John Carter & Co., Inc.
The K. E. Tozier Co.*
Springfield..... John Carter & Co., Inc.
Worcester..... John Carter & Co., Inc.

MICHIGAN
Detroit..... The Whitaker Paper Co.
Grand Rapids..... Central Michigan Paper Co.

MINNESOTA
Minneapolis..... C. J. Duffey Paper Co.
Inter-City Paper Co.
St. Paul..... C. J. Duffey Paper Co.
Inter-City Paper Co.

MISSISSIPPI
Jackson..... Jackson Paper Co.
Meridian..... Newell Paper Co.

MISSOURI
Kansas City..... Carpenter Paper Co.
St. Louis..... Acme Paper Co.
Shaughnessy-Kniep-Hawe Paper Co.

MONTANA
Billings..... Carpenter Paper Co.
Great Falls..... Carpenter Paper Co.
Missoula..... Carpenter Paper Co.

NEBRASKA
Grand Island..... Carpenter Paper Co.
Lincoln..... Carpenter Paper Co.
Omaha..... Carpenter Paper Co.

NEW HAMPSHIRE
Concord..... John Carter & Co., Inc.

NEW JERSEY
Newark..... Central Paper Co.
Trenton..... Central Paper Co.

NEW MEXICO
Albuquerque..... Carpenter Paper Co.

NEW YORK
Albany..... Hudson Valley Paper Co.
Binghamton..... Stephens & Co., Inc.
Buffalo..... Hubbs & Howe Co.
Jamestown..... The Milcraft Paper Co.
New York City..... Forest Paper Co., Inc.
Holyoke Coated & Printed Paper Co.*
Pohlman Paper Co., Inc.
Reinhold-Gould, Inc.
Royal Paper Corporation
The Whitaker Paper Co.
Charles W. Williams & Co.*
For Export..... Bulkley, Dunton Paper Co., S.A.
Champion Paper Corp., S.A.
Champion Paper Export Corp.
Rochester..... Hubbs & Howe Co.

NORTH CAROLINA
Asheville..... Henley Paper Co.
Charlotte..... The Charlotte Paper Co.
Raleigh..... Epes-Fitzgerald Paper Co.

OHIO
Akron..... The Milcraft Paper Co.
Cincinnati..... The Cincinnati Cordage & Paper Co.
The Queen City Paper Co.*
The Whitaker Paper Co.

Cleveland..... The Milcraft Paper Co.
Columbus..... Sterling Paper Co.
Dayton..... The Cincinnati Cordage & Paper Co.
Toledo..... The Milcraft Paper Co.

OKLAHOMA
Oklahoma City..... Carpenter Paper Co.
Tulsa..... Beene Paper Co.
Tayloe Paper Company

OREGON
Portland..... Carter, Rice & Co. of Oregon

PENNSYLVANIA
Allentown..... Kemmerer Paper Co.
(Division of Garrett-Buchanan Co.)
Lancaster..... Garrett-Buchanan Co.
Philadelphia..... Garrett-Buchanan Co.
Matthias Paper Corp.*
Paper Merchants, Inc.
Whiting-Patterson Co., Inc.
The Whitaker Paper Co.
Garrett-Buchanan Co.

RHODE ISLAND
Providence..... John Carter & Co., Inc.

SOUTH CAROLINA
Columbia..... Epes-Fitzgerald Paper Co.

SOUTH DAKOTA
Sioux Falls..... Sioux Falls Paper Company

TENNESSEE
Chattanooga..... Bond-Sanders Paper Co.
Knoxville..... The Cincinnati Cordage & Paper Co.
Memphis..... Tayloe Paper Company
Nashville..... Bond-Sanders Paper Co.

TEXAS
Amarillo..... Kerr Paper Co.
Austin..... Carpenter Paper Co.
Dallas..... Carpenter Paper Co.
El Paso..... Carpenter Paper Co.
Ft. Worth..... Carpenter Paper Co.
Harrison..... Carpenter Paper Co.
Houston..... Carpenter Paper Co.
Lubbock..... Carpenter Paper Co.
San Antonio..... Carpenter Paper Co.

UTAH
Ogden..... Carpenter Paper Co.
Salt Lake City..... Carpenter Paper Co.

VIRGINIA
Norfolk..... Epes-Fitzgerald Paper Co.
Richmond..... Epes-Fitzgerald Paper Co.

WASHINGTON
Seattle..... Carter, Rice & Co.
Spokane..... Spokane Paper & Stationery Co.
Yakima..... Carter, Rice & Co. of Yakima

WEST VIRGINIA
Huntington..... The Cincinnati Cordage & Paper Co.

WISCONSIN
Milwaukee..... Dwight Brothers Paper Co.

CANADA
Toronto..... Blake Paper Limited
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Letters

Dear Sir:

As one of the largest trade varnishing houses in this country we were extremely interested to read your article on page 50 and 51 of the February, 1956 issue of *Modern Lithography*.

Will you please be good enough either to pass this letter on to the manufacturers of the new "Marcote" process or else let us have their address so that we may correspond with them directly.

We are very interested in this new process, and would like to go into the question of introducing it in this country.

H. Hardy-Jackson
L. S. Dixon & Co., Ltd.
Liverpool 1, England

You will be able to contact the Marcote Co. at 503 North Arden Drive, Beverly Hills, California.—*Editor*

Dear Sir:

In the July, 1956 issue of *Modern Lithography*, there appeared an article by David Markstein on the "Brandt Scaleograph." We would like to find out where this item may be purchased, and the cost. Could you supply us with this information, or suggest where we may write?

Mrs. R. A. Santirocco
Williamson Associates,
Rochester, N. Y.

You can get information on the "Brandt Scaleograph" by contacting Mr. Brandt at The Brandt Corp., P.O. Box 465, New Orleans, La.—*Editor*

Dear Sir:

We are interested in roll-fed offset presses and would appreciate it if you would give us the names of three or four manufacturers of such equipment to be used for printing publications and sales literature in one, two or four colors, with folding equipment at the delivery end.

John P. Hedrick
Seeman & Peters, Inc.
Detroit

Several companies manufacture web offset equipment. We are sending a copy of "Offset Press Specifications," which lists the sizes of each and the addresses of the companies manufacturing them.—*Editor*

Dear Sir:

An article appears on Page 45 of your July issue entitled "The Curtis Color Analyst."

The location of the Curtis Company was not indicated in the article. We would like to investigate this method of color

(Continued on Page 155)

Trade Events

National Association of Metal Decorators, 22nd annual meeting, Oct. 15-17, Chalfonte-Haddon Hall, Atlantic City, N. J.
Printing Industry of America, annual convention, Oct. 30-Nov. 2, Statler Hotel, Los Angeles, Calif.

Litho Schools

CANADA—Ryerson Institute of Technology, School of Graphic Arts, 50 Gould St., Toronto, Ont., Canada.
CHICAGO—Chicago Lithographic Institute, 1611 W. Adams St., Chicago 12, Ill.
CINCINNATI—Ohio Mechanical Institute, Cincinnati, Ohio.
LOS ANGELES—Los Angeles Trade Technical Junior College, 1646 S. Olive St., Los Angeles 15, Calif.
MINNEAPOLIS—Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn.
NASHVILLE—Southern School of Printing, 1514 South St., Nashville, Tenn.
NEW YORK—New York Trade School, Lithographic Department, 312 East 67 St., New York, N. Y.
Manhattan School of Printing, 72 Warren St., New York, N. Y.
OKLAHOMA—Oklahoma A & M Technical School, Graphic Arts Dept., Okmulgee, Okla.
ROCHESTER—Rochester Institute of Technology Dept. of Publishing & Printing, 65 Plymouth Ave., South Rochester 8, N. Y.
PHILADELPHIA—Murrell Dobbins Vocational School, 22nd and Lehigh, Philadelphia, Pa.
PITTSBURGH—Carnegie Institute of Technology, School of Printing Management, Pittsburgh.
SAN FRANCISCO—City College of San Francisco, Ocean and Phelan Aves., Graphic Arts Department.
ST. LOUIS—David Ranken, Jr., School of Mechanical Trades, 4431 Finney St., St. Louis 8, Mo.
VANCOUVER—Clark College.
WEST VIRGINIA—W. Va. Institute of Technology, Montgomery, W. Va.

Trade Directory

Lithographic Tech. Foundation
Wade E. Griswold, Exec. Dir.
131 East 39 St., New York 16, N. Y.
National Assn. of Photo-Lithographers
Walter E. Soderstrom, Exec. V.P.
317 West 45 St., New York 36, N. Y.
Lithographers National Association
W. Floyd Maxwell Exec. Dir.
420 Lexington Ave., New York 17, N. Y.
National Assn. of Litho Clubs
Frank H. Mortimer, Secy.
5917 33rd St., N. W.
Washington 15, D. C.
Printing Industry of America
James R. Brackett, Gen. Mgr.
719 15th St., N. W. Washington 5, D. C.
Internat'l. Assn. Ptg. House Craftsmen
P. E. Oldt, Exec. Sec'y.
307 E. Fourth St., Cincinnati 2.



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JUST ONE LOOK through the magnifying glass will show you the superior dot structure you get when you use new Du Pont Photolith Ortho A. You'll see strong, rigid dots — even with the finest screens. You'll see that dots don't go "blind" in reduction or drastic etching.

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Give this new film a chance to prove

itself in your shop and see how it can help produce the results you want. Photolith Ortho A is available from your Du Pont dealer and is supplied in both cut sheets and convenient dispenser-type rolls.

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Editorials

Keep an Eye on California

SHOPS in the West, particularly in California, that produce textbooks by offset (or that have considered going into this phase of the business), may be able to get more business, if they keep their eyes on a recent development in California.

In that state, a move is gaining momentum to abrogate a 72-year old ruling that has long acted as a damper on production of textbooks by private plants in the area. Under the ruling, the state has been leasing plates from publishers and turning over the job of printing elementary textbooks to the state printing office. (Original intention was to take up slack in the state shop between legislative sessions).

A few months ago, eight large national publishers called a halt to leasing plates to California and the controversy came to a boil. ML checked with these publishers and elicited the not surprising comments (although rather strongly worded) that the California system is among other things, "archaic, short-sighted, and not in the best interest of all the pupils in the elementary grades." (*For a complete picture of the situation as it exists today, see August ML, page 55*).

One publisher told ML that "we, like other textbook publishers, are doubtful that any system of textbook selection which prescribes uniform books for use in an area as large as the state of California can provide books that are 'best' for the various types of communities in the state, or that it is as likely as local adoption to select books on the basis of merit."

Another declared that, "under that law (the California ruling) many of the best textbooks produced

in this country have been unavailable all through the years for the education of the children of the state."

There has been plenty of other comment on the situation, some on the other side of the fence, according to our California correspondents. The important thing, however, is that the state government now seems sympathetic toward repealing the textbook law. If so, it will mean that the state printing office will cease publishing textbooks, all of which work has been done by letterpress, and lithographers in the area may be able to land some of the business. One of the largest national book publishers told ML that most of his company's elementary textbooks are done by offset.

Offset is making big strides in this direction every year, ML has observed, and repeal of the California textbook ruling may open the way for even bigger gains.

Still Too Little for Research

A NUMBER of remarkable developments have resulted from research in the graphic arts industry. To name a few, there have been phototypesetting, xerography, presensitized offset plates and electronic engravers.

But all this has been done with very meager research funds. J. Homer Winkler, technical adviser at Battelle Memorial Institute, put his finger on the point in a talk at the recent Craftsmen's convention. "Radically new processes and developments have found ready customers and enthusiasts," he stated. "As a result, the research expenditures of the printing and publishing industries have continued at an estimated annual level

(Continued on Page 155)



NAPL 'Workshop' Convention Draws Record Attendance

NAPL's experimental technique of holding four concurrent round-table discussions, and concentrating generally on the workshop approach at its convention last month was highly successful, with a record number of 1540 lithographers and suppliers in attendance.

There were five panel discussions, in all, not including the big windup session on Saturday when five specialists handled questions on all phases of offset. The convention was held at the Commodore Hotel in New York, Sept. 19-22.

In addition to the work-shop meetings, 10 speakers addressed the well-attended general meetings of the National Association of Photo-Lithographers in the ball room. The Hon. Raymond Blattenberger, Public Printer of the U.S., was on hand to offer the invocation, and to receive an engraved scroll praising his work at the Government Printing Office during the past three years.

Outside the meeting room, all available display space was jammed with exhibits of graphic arts equipment.

Presses, cutters, washup equipment and many other units provided a low rumble of background for the well-traveled exhibit area. The annual dinner-dance, old-timers party and special luncheon were other features of the convention.

Interest was running so high at the exhibits, in fact, that several manufacturers (of presses, cabinets and blankets) told ML that they landed good sized orders for their equipment.

The round table discussions, on small offset duplicating, copy preparation, preparatory processes, 17 x 22" presses and larger, and presensitized plates, are covered in separate articles accompanying this general coverage of the convention, as is the Saturday quiz session.

Howard Suggests Checkup

Rex G. Howard, president of The Howard Co., Peoria, Ill., and outgoing president of NAPL, welcomed the convention with a talk on equipment, personnel and plant operations. He said "it is ironic that we hire management consultants to tell us

what we should already know" about plant operations.

"We usually get an annual checkup with our doctor," he added, "but few of us think to conduct such a thorough examination regularly in our litho shops." It is important, he said, to make an appraisal of all phases of plant operation, evaluate the results and make changes wherever necessary, without regard for how things were done in the past.

Study lithographic equipment and remove the old inefficient pieces that are actually costing more money than they are worth, he suggested. He went on to consider check points for management to help examine its operations impartially and with an eye toward improving them.

Paper for Offset

Paper, for printing, although it is of vital importance to this industry, represents only a small portion of the annual sales, according to figures quoted by John L. Kronenberg, manager of the lithographic paper division of S. D. Warren & Co. The



At the NAPL convention, left to right: Bernard S. Rosenstadt, Ardlee Service; George E. Loder, National Process Co., (past president of NAPL); Paul A. Heideke, Washington Planograph Co., (past president of NAPL); NAPL staff—Robert S. Eanslie Jr., secretary, Frank R. Turner, Jr., cost accountant; Miss Erna Keiden, and Walter E. Soderstrom, executive vice president; Fred A. Fowler, Coast & Geodetic Survey; Harry Riley, Jet Platemaking Service; Cornelius O'Brien, MacBeth Arc Lamp

Co.; Robert Erhardt, Jet Platemaking Service; George F. Ruegg, Price Bros. Litho Co.; J. Leonard Starkey, McCall Corp., Paul A. Bernstein, Price Bros. Litho Co.; Wade Griswold, executive director, LTF; Sol D'Alessandro, Horn & Norris; Lee Rosenstadt, Ardlee Service; George R. Hoover, Joseph Hoover & Sons Co. (new president of NAPL) and Norman Mack, Van Son Holland Ink Co.

paper industry sells most of its paper elsewhere than the letterpress and offset industry, according to the speaker, who pointed out that "historically, printing paper has returned poor profits for the paper mill" and there has been little incentive for expansion.

"But the profit picture is looking much brighter now," Mr. Kronenberg added, "and new equipment is being added by mills, which means that the increased demand for lithographic paper will be met in the future."

The speaker traced the development of lithography and the outlook for its continued expansion as indicated by the recently issued Stanford report, which predicted rapid growth of population in the United States and an accompanying growth of business.

He said that the poor quality which was typical of so much lithographic work in the early '20's may have been caused by the wrong kind of paper. As better papers were developed for offset, he explained, the quality of work began to improve. He listed the important developments in paper as follows:

1. Trend away from "blotter" type papers toward higher grades with pigmented surfaces.
2. Introduction, in 1937, of the standard coated paper.
3. Improvement of the enamel pa-

pers after World War II, an important step in paper progress.

4. Machine coated lithographic papers.

5. Mirror-finish papers produced by cast or lustre coating methods.

Mr. Kronenberg went on to declare that offset was being utilized in many fields where formerly letterpress dominated. Among these he mentioned promotional literature for automobile manufacturers and school and college yearbooks. These gains have all been made, he said, despite the very tight supply of offset paper since World War II. The main reason for this tight supply, he said, is that the cost of a single paper machine with supplementary equipment is approximately \$20,000,000. He went on to mention several recent installations of paper making equipment which he said are the start of a trend in the industry which will result in the paper mills being able to meet increased demand for more offset paper of higher quality.

Small Offset Press

The place of the small offset press in the litho shop was considered by James S. Wilkinson, lithographic consultant, in a talk that opened the second day of the convention. Mr. Wilkinson listed the advantages of small presses, like the Multilith and the Davidson, as low cost, ease of

operation, fast changeover, and mechanical simplicity.

With such equipment in the shop, the lithographer is capable of offering "same day" service to his customers and he will have a valuable weapon for preventing the growth of "captive" plants.

Handle Many Jobs

"These small presses are capable of doing almost all kinds of lithographic work, including two-color jobs and even three-color process work," he declared. The small presses also can be of great advantage to letterpress printers who want to get into offset in a small way. They have another function as proving presses for color work in offset plants.

"The major reason for the growth of captive plants is that big companies want quick delivery for small black and white jobs," the speaker declared. He said that the need for this quick delivery and the inability of lithographers to meet it in the past motivated many companies to install their own printing equipment. However, he added, the lithographer, by utilizing to best advantage small offset equipment, can win back much of the work that has gone to captive plants.

He closed his talk with a brief description of the Multilith, David-

Small Offset Duplicating Presses

PRESIDING: James S. Wilkinson, lithographic consultant. PANELISTS: G. W. Bassett, Miehle Printing Press & Mfg. Co.; George A. Cameron Jr., Princeton Polychrome Press; Kenneth Dorman, Offset Duplicator Review; Richard Dowley, Addressograph Multigraph Corp.; Michael Golde, The Michael Press Corp.; George J. Hart, Shell Oil Co.; James F. Horan, J. J. Newberry Co.; William G. Karr, N. J. Bell Telephone Co.; William Moran, Davidson Corp.; and William C. Myles, American Type Founders.

Reasons for growth of "captive plants" was one of the most prominent topics at this round table section. Mr. Moran affirmed the view expressed earlier in the convention program by Mr. Wilkinson (in his Thursday address) that these plants developed because of the failure by commercial printers to meet the prime need of customers—quick delivery on small, short-run jobs.

One lithographer told the group his shop has several large presses, handling up to 42" sheets, but it also contains five small duplicators to handle short runs. So far, he reported, this service has discouraged his customers from getting into the printing business themselves. "Small duplicating presses," he declared, "can be very profitable."

Methods of compensation for operators in captive shops, and methods of cost-accounting in these shops also were aired. Mr. Horan stressed the advisability of paying good wages to the duplicator press operators, lest they be attracted elsewhere. Mr. Hart concurred, adding that his company uses a yardstick for wage rates just as it would when hiring engineers. One man in the group cited the case of several duplicator operators who broke in in a captive plant, went to a small commercial

(Continued on Page 159)

son, A. B. Dick, Ditto, American Type Founders, Harris Seybold, and Miehle presses in the small sizes.

Forms for Sales

Eighteen forms are used by the sales department of the Spaulding-Moss Company to control the operations of the sales department at this lithographic shop. The use of these forms and their value to their company, indicating sales trends and planning company operations, was outlined by Marshall L. Russell, sales manager of the printing division of Spaulding-Moss.

He said his company estimates sales for a year in advance and thereby can make fairly definite plans for plant operation and can decide whether additional equipment will be needed to handle added volume.

"We analyze sales potential for the coming year and evaluate business trends to determine just how much work our shop will be likely to turn out in the coming year," Mr. Russell explained. He showed slides of the various forms used by his company and indicated their value in the overall planning of the sales department.

In discussing sales compensation, Mr. Russell said that his company starts each salesman with a basic salary and sets up a goal for him to justify this salary base for each quarter. Adjustments are made in his salary in accordance with the ability or inability of the salesman to produce the sales on which his salary has been estimated.

"Our system does away with sharp increases and decreases in salary because a 12-month's average is projected, and only slight changes are made month to month in this estimate," he stated.

Photon Exhibit

One of the most exciting features of the NAPL convention was the exhibition in the meeting room of the Photon, phototypesetting device which has been in development for 10 years.

W. W. Garth, Jr., president of Photon, Inc., brought the audience up to date on the status of the machine. In setting type on film, Mr. Garth explained that the Photon can

In The Photos

Among the many photographs snapped at the NAPL convention and at the "Old-Timer's Night" at Leone's Restaurant are the following, all left to right:

1. Edward Swayduck, Amalgamated Lithographers Association, Local 1; Herman Schultz, Schultz Litho; John F. Perrin, of the LTF; and Edward Hansen, ALA.
2. James G. Cox, Azoplate and Charles H. Van Dusen, Jr., manager, chemical research, Addressograph Multigraph Corp.
3. Group of old-timers at party in Leone's.
4. Lee J. Ferris, Navy Hydrographic, and Penn R. Watson, William J. Keller, Inc.
5. John K. Minnoch, business analyst, delivers luncheon address; far left is Merle Schaff, of Dando-Schaff Printing & Publishing Co.; seated at right is Rex Howard.
6. Robert Emslie, Jr., NAPL secretary, pats Rex Howard on back after presenting him with token of appreciation for Mr. Howard's service as president of NAPL.
7. George R. Hoover, of Joseph Hoover & Sons, newly elected NAPL president, and William Stevens, Miehle.
8. Harry Brinkman, Cincinnati Litho, and David W. Schulkind, E. P. Lawson Co.
9. At Rollographic Corp. booth are Miss Rollographic and Herbert Jacobs.
10. William A. Krueger, W. A. Krueger Co., and William Recht, William Recht Co.
11. A. J. Fay, Western Printing & Lithographing Co., presents Rex Howard, The Howard Co., a plaque in appreciation for his work as president of NAPL for the past two years.
12. Herman Schultz, Schultz Litho; George Siebold, J. H. & G. B. Siebold, Inc.; Harry H. Rogers, The Harry H. Rogers Co.; and Sol Berg, of Siebold.
13. Norman A. Mack, research director; Karl Anton, Jr., and Andrew Palmer, all of Van Son Holland Ink Corp.; and Michael Golde, Michael Lith, Inc.
14. A group of interested spectators view the Photo exhibit, composed of the Photon machine and examples of work it has done.
15. Dale McKnight, Vulcan Rubber Co.; Harry A. Porter, Harris-Seybold Co.; M. C. Byrum, Byrum Lithographing Co.; and John L. Kronenberg, S. D. Warren Co.
16. Frank Goldsmith, Zimmer Printers Supply and William Stevens, Miehle.
17. George Charnock, Jr., Craftsman Line-up Table Corp.; Al Guthrie, Harris-Seybold; Harry H. Rudner, National Litho; and Neil R. Kinsley, the Reid Press.



Round Table on Presses 17 x 22" and Larger

PRESIDING: Bernard S. Rosenstadt, Ardlee Service Inc. **PANELISTS:** William J. Stevens, Miehle Printing Press & Mfg. Co.; Harold W. Gegenheimer, William Gegenheimer, Inc.; Charles Staudohar, American Type Founders, Inc. and Kenneth Nolan, Harris-Seybold Co.

A lively session covered such problems as adjustments for various types of paper, auxiliary attachments, paper dampener covers, quality in large and small presses and web offset.

Mr. Stevens remarked that adjustments often have to be made to offset presses because of the wide variety of paper that is run on them.

There was some disagreement as to whether quality is as good on a large press as on a medium sized press. Most agreed it is. The lithographers also agreed that better quality (dot structure) can be obtained when a four-color job is run on a single color, as opposed to a four-color press.

Mr. Rosenstadt had high praise for the recently developed paper (parchment) dampener covers. He said he has used them in his shop for as long as three weeks without changing them. He went so far as to call them "revolutionary," and asserted that they are the most important recent improvement in the dampening system.

Mr. Gegenheimer described their use. He said they are wound spirally around a soft rubber roller, with only one dampener roller being used.

He cautioned that, while these dampeners have worked very well, they have two drawbacks: water control is much more critical and the dampeners tend to dry out, and sometimes shrink and tear, when the press is stopped for long.

Continuing on the subject of water, he said a 22 x 29" press, running 5,000 iph. of an average job, will use a "shot glass"

of water in a minute, or two gallons in six hours. For a 42 x 58" press at the same speed, five gallons, on the average, are required for a six to seven hour run (for each color). Mr. Gegenheimer also described the function of water levels and washup machines, the latter now being a generally accepted piece of equipment on offset presses, he said. The only problem with this equipment is that it can't remove some lint from rollers because the lint often does not work its way from roller to roller to the point where the unit is in operation.

A short discussion of the new vacuum cleaners to remove this lint from the paper before it goes into the press, followed. There was a short consideration of web offset, and the inherent difficulty of finding a folder that can handle the sheet effectively at the high web speeds.★

alter the width of the line by 1/100th of an inch and leading can be done to 1/10th of a point, with extra leading available.

He went on to discuss the great range of justification possible with his machine, showing slides to illustrate the operation of the unit. After Mr. Garth's talk, a representative of Photon was on hand for two days to demonstrate, usually before large groups of lithographers, the actual operation of the Photon.

Funds for Research

A call for bigger investments in lithographic research was made by John F. Perrin, president of the Lithographic Technical Foundation. Mr. Perrin stated that lithographic plants have invested less than .01 percent in the 32-year-old foundation, whereas other industries made up of small units have spent as much as .2 percent. He said that, "there aren't a dozen plants owning litho equip-

ment that budget as part of their cost of doing business anything specifically for scientific research or for employee training." Mr. Perrin said the advantages of litho research are two fold: values that can be estimated in dollars, and indirect values "such as insurance for the future of your business and the industry's well being."

"If our profits are low, it is easy to put the blame on increased taxes and costs of material and labor, whereas part of the blame may be due to the fact that we do not support scientific research, so necessary to keep us out in front of other processes," the speaker added. In discussing the profit picture in the litho industry he commented, "the hatchet men have pushed pencils for years in search of cost savings and corners to cut. They are about at the end of their rope. Scientific research and improved craft skill is the only way out."

Mr. Perrin went on to cite some

of the many research projects conducted by LTF, including developments in deep etch platemaking, studies of ink quality, grain, non-blinding lacquers, coatings for pre-sensitizing plates in the litho shop, dampening and many other things. He also announced availability of the new LTF simplified color chart. (This color chart was reported in MODERN LITHOGRAPHY earlier this year).

Mr. Perrin concluded with this quotation: "Manufacturing without research is something like flying without an engine. It is, in reality, gliding and, ultimately the direction must be down."

At the special luncheon on Thursday, Bernard Rosenstadt, of Ardlee Service, read a resolution of praise for Raymond Blattenberger, Public Printer of the United States, who was in attendance at the convention and who offered the opening invocation. The resolution praised Mr. Blattenberger for his efficient conduct of

Copy Preparation for Offset Reproduction and Line Art

PRESIDING: *Walter Conway*, president, *Walter Conway & Associates*, Washington, D. C. **PANEL MEMBERS:** *Werner Rohling*, *Alton Mayo*, *Mrs. Alice Cave*, *Verdan Wiedel* and *William Stitt*, all of *Walter Conway & Associates*.

A panel composed of staff members of one copy preparation shop described the workings of their business as an "economic need for something better than mimeograph for those who can't afford hot metal work." Although cold type copy preparation is in direct competition with the hot metal business, it was evident from opinions from the floor and panel that the letterpress industry is not being pressed too hard, even though the International Typographers Union has begun basic courses in copy preparation.

According to the panel, one of the main problems in the field is obtaining qualified technicians. Since large scale copy preparation is comparatively

new, there are few who have been trained in its technical aspects.

In copy preparation, all work is done before the final page or piece is ready to go before the camera in the litho shop. Copy requiring halftones, in addition to the line work, of course, is handled by pasting up a glossy print on the page which eventually will go before the camera in the offset shop.

Most of the examples shown to the audience were of line work, including price lists, catalogs, engineering drafts, tabular work, charts and forms.

Some of the problems discussed were line justification, authors' corrections, I.T.U. restrictions, and personnel problems. Mr. Conway stated that his organization has found it increasingly difficult to service the letterpress industry with his work because the I.T.U. claims it is interference.

Copy corrections are one of the most troublesome spots in the copy preparation field. Most copy preparationists steer away from technical work because lapse of time often brings about authors' corrections.

Of main interest to participants was the question of cost of work prepared by letterpress as against the cold type method. One example cited, listed the cost for single column justified work at \$6 a page (less than by linotype) and it could be done in the same time as linotype.

The session also explored wage rates in the field and markets for sale of copy preparation. Most of Mr. Conway's work is government, even though his firm doesn't solicit it. A growing field for copy preparation, according to the panel, is the annual report work, on which so many corporations, large and small, are placing mounting emphasis.★

the GPO and for returning money to the treasury.

Former president A. J. Fay of Western Printing & Lithographing Co., Inc., read a similar resolution in praise of Rex G. Howard, retiring president of NAPL.

Van Bloem: Building

The special speaker at the luncheon was John K. Minnoch, business analyst, who gave an inspirational talk in a humorous vein.

Some points to be considered in designing and building a lithographic plant were listed by P. Schuyler Van Bloem, executive vice president of Brown & Matthews, Inc. Mr. Van Bloem replaced F. Arthur Bickel, president of the company, who was ill and could not give his scheduled talk.

The speaker divided the subject into four main categories:

1. *Selection of the site.* This includes consideration of labor supply,

transportation, freight rates, utilities, soil, zoning, building codes and many other considerations.

2. *Design of plant.* A big aid in designing the plant is the use of a production flow plan utilizing a small scale model of the proposed plant. The model can be varied until a desirable setup is obtained.

3. *Construction.* In this phase of the operation the materials to be used, the height of the roof and other architectural features must come under consideration. Mr. Van Bloem digressed at this point to discuss the advisability of planning for air conditioning in lithographic plants, because he thinks it is rapidly becoming standard in many new buildings. He said that if there is a chance that air conditioning will be installed it may be desirable to eliminate a skylight in the plant because it could be a hindrance to an air conditioning unit.

4. *Financing.* Mr. Van Bloem dis-

cussed the many available ways of obtaining capital for construction and covered the possibility of ownership, leasing, and other financial arrangements.

Rinehart: Quality Control

The laws of probability play a part in any quality control program, another speaker told the NAPL. The speaker, Stanley R. Rinehart, manager of the printing division of Du Pont, had as his topic, "Quality Control Moves Ahead." Mr. Rinehart said that the goal of the quality control program is to limit variation in lithography to the laws of normal variation. He said, "we must accept a small variation as inevitable. There should be a small tolerance either way. After that we shouldn't try to meddle with the process."

Describing his company's one-and-a-half year's experience with a quality control program, he offered these five lessons in quality control

Preparatory Processes, Including Camera, Correction, Stripping and Platemaking

PRESIDING: William H. Falconer, Eastman Kodak Stores, Inc. PANELISTS: Louis Federmack, Daniel Murphy & Co., Inc.; Bernard R. Halpern, Photo-Mechanical consultant; George Hammer, Forbes Lithograph Co.; Walter A. Kaiser, Edward Stern & Co., Inc.; and John E. Morse, Brett Lithographing Co.

Of the four round table discussions held Sept. 21, this one drew the largest crowd. One point of interest was the fact that handwork has been reduced to an absolute minimum. Of the many persons who said they have reduced handwork, one plant owner reported he uses only eight percent handwork in preparatory processes. Another plant owner pointed to the fact that opaquing formerly required six or seven hand operations, whereas the process now has been supplanted by two to three operations.

Masking and color stripping were topics of high interest and in this regard Mr. Kaiser described time and gamma curves and how they are used. One of the questions from the floor was, "What can be done in stripping to get better register in color work?" Use of a plastic material was suggested.

A few of the other questions follow:

Q: Is it best to strip a positive or a negative in process color work on labels for cans?

A: (From the floor). If you strip the positive, you don't have to opaque it.

Q: How do you control agitation of the developer?

MORSE: Suggested use of an electric timer with a metronome set to rock, for example, at 48 times a minute. He said this method is especially good for color separations because it is an easy matter to give each

(Continued on Page 155)

that his company has learned so far:

1. Readings and samplings need not be made by printing craftsmen. Others can be trained in this work.

2. A quality control program can raise the level of quality in a shop.

3. Checking on the operations of press men and others involved in the quality control program has helped increase quality.

4. Realistic standards are necessary if the control program is to mean anything.

5. Quality variation is directly related to costs. The litho plant that has an effective quality control program, even though it takes a little extra money and involves the full time of at least one employee, can bring about savings that will pay the entire cost, he asserted.

"We're not satisfied with our quality control program," Mr. Rinehart admitted. "However, we think we are on the right road, although we need more experience and we need particularly an instrument to measure color variation in an objective rather than a subjective way."

He urged litho shops contemplating establishment of a quality control program to set up a formal program under supervision of management and to devise charts for keeping

records. In answer to several questions after the formal presentation of his talk, Mr. Rinehart, assisted by Russell Johnson, manager of Du Pont's Philadelphia printing division, cited some of the problems in converting "old-timers" to a quality control program. However, he said that experience in his company has shown that this can be done successfully.

In answer to another question he stressed the importance of having a full time quality control man who works 100 percent of his time at this job alone. He also mentioned that his company does not use the quality control method for runs of 5,000 and under. For the shorter runs, he said, random inspection in the bindery is used.

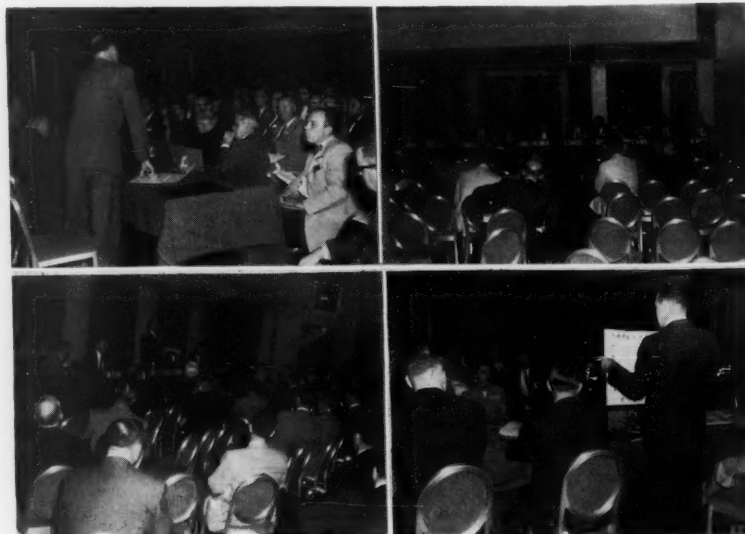
Mattson: Supervision

George A. Mattson, executive director of the Chicago Lithographers Association, speaking on the topic of "Supervision in the Lithographic Industry" proposed that a research survey be made on the function of the production supervisor.

"Before World War I, the production supervisor was driven hard by management and was given no real status in the litho plant," Mr. Mattson

(Continued on Page 157)

Top Left: Round table discussion on Preparatory Processes, Louis Federmack, Daniel Murphy & Co., speaking; *Top Right:* Small Offset Duplicating round table; *Bottom Left:* Discussion of presses 17 x 22" and larger; *Bottom Right:* Copy Preparation for Offset Reproduction, Walter Conway, Walter Conway & Associates, speaking.



Census of Printing Machinery Shows Offset Made Big Gains, Letterpress, Gravure Dropped In Seven Years from '47-'54

MANUFACTURERS in the Printing-Trades Machinery Industry shipped products valued at \$249 million in 1954, an increase of 24 percent over 1947, according to preliminary results obtained from the 1954 Census of Manufactures conducted by the Bureau of Census, Department of Commerce. Average employment in this industry, has dropped 11 percent since 1947 (when the last Census of Manufactures was taken) to a total of 22.1 thousand employees in 1954. Value added by manufacture in the industry amounted to \$175 million in 1954, an increase of 26 percent over 1947.

"Valued added" is derived by subtracting the cost of materials, etc., from the value of shipments. It avoids, therefore, the duplication in the value of shipments which results from the use of products of some establishments as materials by others and is the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic

areas, according to the Bureau of Census.

Lithography

One of the tables in the report shows the number and value of presses and other equipment. For offset, there were shipments of 660 single-color sheet-fed presses in 1954, as compared with 843 in 1947, but at a slightly increased value (\$8,887,000 as compared with \$7,720,000). Multicolor sheet-fed and web-fed presses totaled 160 and 54 respectively, for a total of 214, an increase over the 187 in 1947, when these two types were grouped. The value for the two types increased from \$8,134,000 in 1947 to \$14,751,000. The trend away from single-color sheet-fed presses to the larger webs, with several colors, is obvious from these statistics.

Letterpress

Letterpress did not fare so well, with 1,745 presses of all types shipped two years ago, as compared with 2,879 in 1947. The only directly comparable figures indicate a severe drop in the number of high-

speed cylinder (job) presses up to and including 22 x 28" (including verticals.) The figure for 1954 was 859, down 1,438 from the 2,297 total in 1947. The value of all types of letterpress units likewise dropped, from \$29,255,000 to \$18,899,000.

Gravure

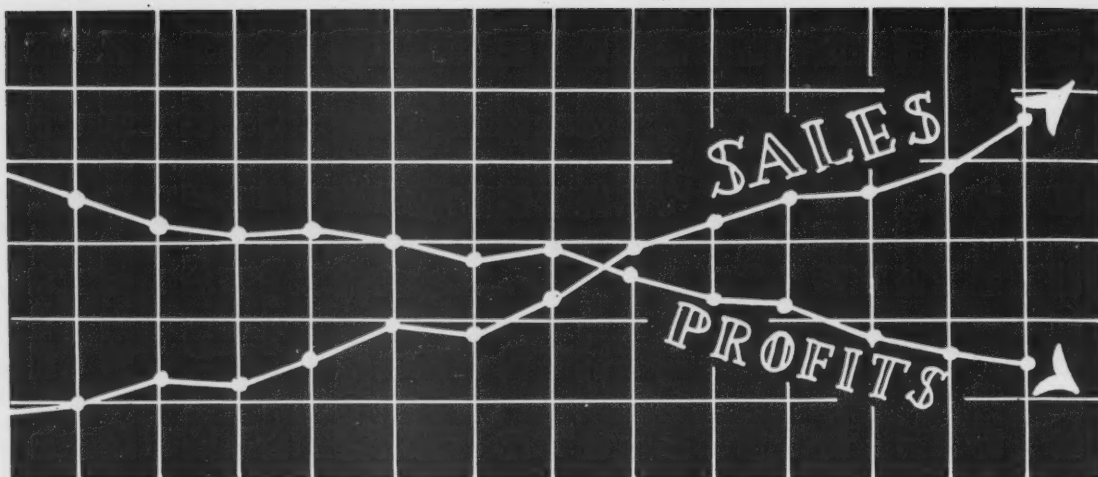
Gravure also fell off in the seven year period, according to the preliminary report. In this category, shipments of presses (sheet and web-fed) totaled only 42 in 1954, compared with 113 in 1947. Value was \$3,197,000 and \$5,807,000 respectively.

No adjustments have been made for changes in price levels between the two years. All figures in the report are preliminary and, therefore, subject to revision in the final industry bulletin, the Bureau cautioned.

The Printing-Trades Machinery Industry represents manufacturing establishments engaged primarily in the manufacture of machinery and equipment used by the printing and bookbinding trades, such as bookbinding and photoengraving machinery; presses, typesetting, typefoundry, electrotyping and stereotyping machines; engravers' equipment; printers' rollers, rules, sticks, blocks, and type cases; and type, leads, and slugs. Establishments primarily manufacturing textile printing machinery are defined as being in Industry 3552, Textile Machinery. The Industry classification for the Printing-Trades Machinery Industry used in the 1954 Census of Manufactures is based on the Standard Industrial Classification.

The value of shipments, as reported by establishments classified in the Printing-Trades Machinery Industry, consisted not only of products described above as primary to the industry, but also included the value of secondary products (which are primary to other industries).

More detailed figures for this industry will appear in the Census Bulletin, MC-35C, "Special-Industry Machinery," which will be published and offered for sale at a later date by the Superintendent of Documents, U. S. Government Printing Office.★



PIA Seeks Answers Oct. 30-Nov. 2:

Why Are Profits Declining While Sales Are Increasing?

MEMBERS of the graphic arts industry, including many lithographers, will have a chance to surfeit themselves with the sights of Los Angeles, Hollywood, Disneyland and other California tourist attractions the end of this month. Having barely returned to their desks from the exciting Craftsmen's convention in that city last month, with the post-convention jaunt to Hawaii, printing leaders will get another chance to gather in Los Angeles Oct. 30-Nov. 2 for the 70th annual meeting of Printing Industry of America, Inc.

A problem of growing concern to letterpress and lithographic printers — the dwindling profit margin despite increased sales — once again will be the main convention theme. "Why are Printing Profits Declining as Sales Increase?" will be a topic that will provide the basis of discussion for half a dozen speakers.

The convention will be held at the Hotel Statler. The keynote address will show how future business conditions, developments in new equip-

A special train to carry delegates to and from the convention will originate in New York Oct. 24 and reach Los Angeles the afternoon of Oct. 29. The return trip will be via San Francisco, arriving back in New York Nov. 10. All arrangements for the train trip are handled by the United States Travel Agency in Washington, D. C.

ment, materials and processes and future labor developments will create a climate for future profits. Included in the program will be an analytical presentation which will show "Why Some Companies Make More Profits Than Others." This will be an analysis of nearly one-fourth of the 654 firms who participated in the 1955 Ratio Study who average 12 percent or better. These companies range in size from the smallest to the largest in the industry.

Profitable Operations

The analysis will show how operations of the companies differ from

companies with less satisfactory profits. This will be followed by a discussion of the operations which contribute most to making satisfactory profit conditions in the selected companies. Then there will be presented a discussion of "The Four Platform Planks On Which Management Must Stand To Improve Profits."

The PIA sessions are scheduled to include the presentation of a tax reduction program.

The annual meeting of the Master Printers Section will devote itself to "The Practical Application Of Sound Human Relations — Today's Key To Printing Profits." The Union Employers Section at its annual session will devote its attention to "Better Labor Relations Based On Understanding." The UES will have exhibits and panel discussions which will embrace current problems confronting employers of union printing trades labor.

The West Coast printing associations are making special efforts to attract a large group of West Coast printers who will join with the Los

Program for 70th Annual PIA Meeting

The convention program will include:

Sunday, Oct. 28

Managers breakfast and business session

Monday, Oct. 29

Board of directors meeting
Executive committee meeting
Web Offset section executive committee meeting
Trade Binders section meeting

Tuesday, Oct. 30

PIA general session
NPEA directors meeting
Carnegie alumni luncheon

Wednesday, Oct. 31

Miller Self-Advertising Awards breakfast
Union Employers section, general session
Master Printers section, general session
Master Printers section, luncheon
NPEA member meeting
Ladies luncheon and fashion show
PIA Self-Advertising Awards Exhibit opens
PIA banquet

Thursday, Nov. 1

Master Printers section, general session

Union Employers section, general session

Union Employers section, luncheon
PIA general session — afternoon

Friday, Nov. 2

Rotary Business Forms section meeting

Ticket and Coupon section meeting

Special events will include the Ash Khan reception and dinner, business and news press reception and dinner, the A. F. Lewis memorial award to the graphic arts Man-of-the-Year, and the Printers' and Lithographers' Self-Advertising Exhibition and Awards.

Angeles Association in welcoming fellow printers throughout the United States and Canada. Complementing the business sessions, which are designed to unlock doors leading to improved profits, the Printing Industries Association of Los Angeles has planned stimulating and entertaining social events for the members, their wives and families. One of the main features will be a trip to Disneyland on Tuesday, Oct. 30. The business sessions will be terminated in the

early afternoon so that the entire convention group may visit Disneyland and participate in a special evening event.

Special Entertainment

The ladies will be guests of the Los Angeles Association, with special entertainment programs planned for them. The Los Angeles area offers many other sightseeing attractions, such as the Grauman's Chinese Theatre, Catalina Island, the Hollywood

Bowl, the television center, Chippatown, the nearby beaches on the Pacific Ocean, the Will Rogers Ranch, and many others.

At the close of the convention, members are being offered an all-expense air-cruise to Hawaii, leaving Los Angeles Nov. 2 and returning Nov. 11. This will include not only a stay in Honolulu but motor trips around the Island of Oahu and trips to the Islands of Hawaii and Kauai with their scenic splendors.★

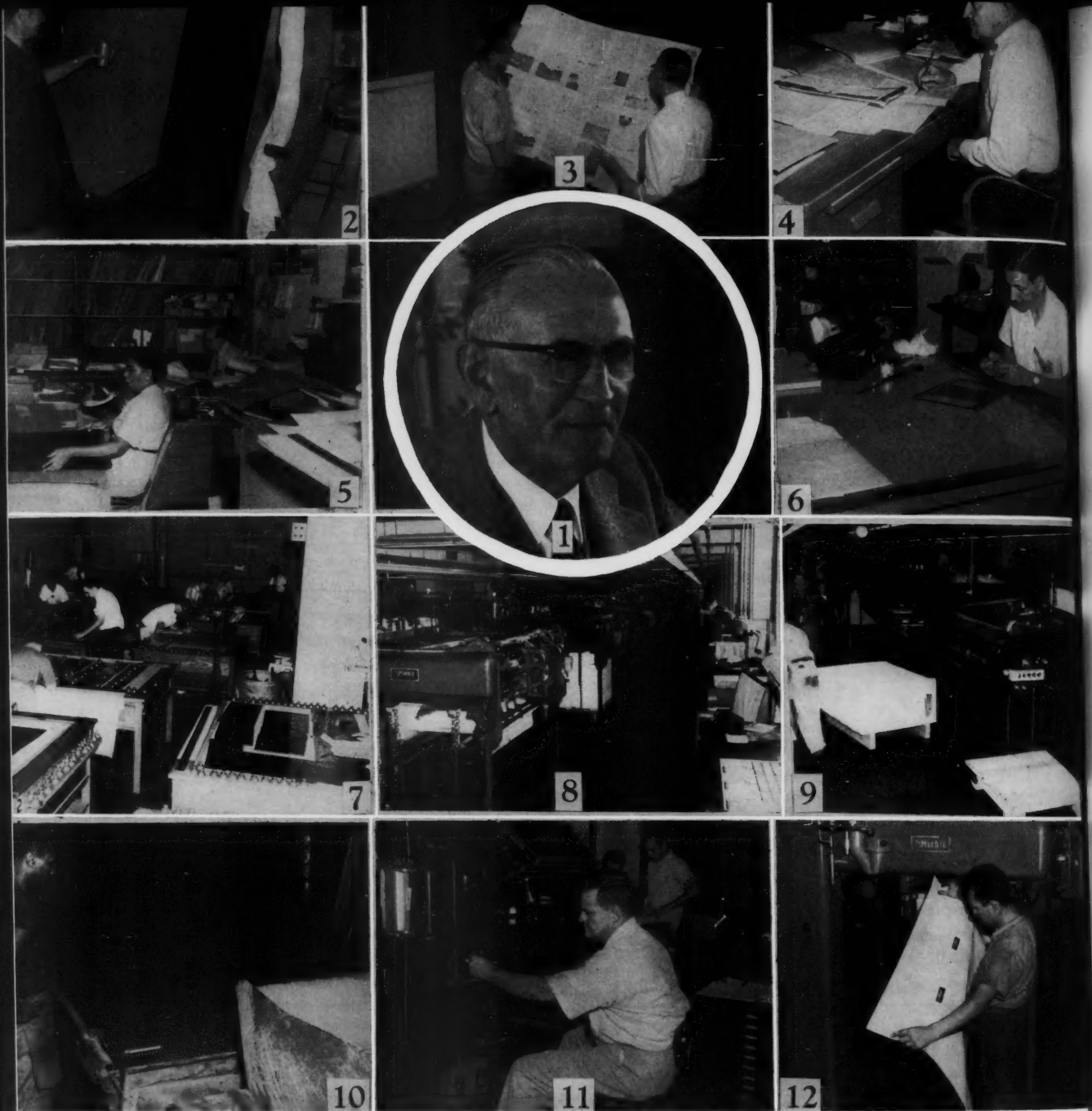
Rotary Business Forms Section To Discuss Standards

THE Rotary Business Forms section of PIA will meet in Los Angeles Nov. 2 to discuss its new Production Standards Report. The meeting is being held in conjunction with the PIA Annual Convention especially to provide an opportunity for West Coast PIA members in the rotary forms field to become familiar with the program and activities of the section.

A report on Rotary Collating Standards will be presented for the first time and there will be a discussion by Donald E. Sommer, vice president of Rudisill and Co., Lancaster, Pa., on this report and two previous reports on Press Production Standards.

The afternoon will be devoted to two panel discussions. The first, led by Peter Becker, Jr., of Arrow Service, Washington, D. C., will deal with the profit picture and the reasons therefore, as shown in the 21 reports submitted by members of the Rotary Business Forms section for the PIA 1955-56 Ratio Study.

The second panel will take up the proposed Budgeted Hour Cost survey. Discussion will cover the means and methods of conducting this survey, the operating areas and machines to be covered, and the practical end use results to be sought. Election of officers also will be held at the meeting.



1. The Hon. Raymond Blattenberger, Public Printer of the United States.

2. Coating a plate in vertical whirler.

3. Edward E. Burgee, (r.) foreman of offset division, looks at press sheet from new Harris-Seybold press, with pressman.

4. Assistant foreman of the preparation section, Raymond Geegh, at his desk.

5. Philip Boss handles thousands of stored negatives of offset jobs.

6. One of many opaquers at G.P.O.

7. Complex stripping department, showing the small weights developed by a shop member for holding film in place.

8. View of main battery of offset presses, 25 in a row. New Miehle press in foreground.

9. Same view as No. 8, from the other end of the row, showing new Harris presses.

10. Graining a large lithographic plate.

11. Intertype Fotosetter, first to be used in U.S., is used primarily for setting tabular matter for forms.

12. Pressman checks press sheet from recently installed Miehle press.

G. P. O. Adds 16 Offset Presses, Litho Gains 250% In Two Years

ONE day recently Raymond Blattenberger, Public Printer of the United States, phoned a printing buyer at one of the government agencies and addressed him as a "customer." The man was surprised and delighted, declaring "I've been called many things before, but no one at the Government Printing Office ever called me a customer before!"

To Mr. Blattenberger's associates in the G.P.O. and the many friends he made in the graphic arts during the 47 years before he was named Public Printer, this anecdote will come as no surprise. For Mr. Blattenberger is a friendly, informal fellow by nature, but when he's doing business, he is all business.

That's why he was able to make those now famous savings, totaling \$11,000,000 in capital funds, in less than three years as head of the largest printing plant in the world. And it is why he has decreased charges for government printing in the same period, even while granting wage increases to keep pace with private industry.

A big reason for the savings, he

will tell you, is because he brought the offset equipment at G.P.O. into a better balance with letterpress. When he took over three and a half years ago, there were only 16 offset presses, as compared with more than 175 letterpress units. Mr. Blattenberger quickly took steps to remedy the situation. One of the first things he did was to establish a Division of Offset, with responsibility for all offset functions and operations transferred from four or more other divisions. John L. Grant was made Superintendent of the new division.

Next Mr. Blattenberger started adding modern offset presses, removing equipment that was too ancient to produce efficiently. Most of it, in the nature of things, being letterpress but including several old offset units.

When MODERN LITHOGRAPHY visited with the Public Printer and his executive officer, Dr. Roy B. Eastin, several months ago, another big phase of the continuing process of modernization was just being completed with the addition of 16 new litho presses, four, 36 x 48" and 12, 42 x 58". The last two presses, a Miehle and a Harris-Seybold, in this

mighty installation were getting "shake down" runs when ML toured the offset pressroom at G.P.O. The latest additions brought the total of offset units to 40, or a 250 percent increase in offset presses in three years. Some new letterpress equipment has been added in that time, but lithography has been brought into much better balance, according to Mr. Blattenberger, because it now represents approximately 35 percent of the total capacity.

Tries To Be Realistic

The Public Printer isn't trying to push letterpress out of the G.P.O. and replace it with offset. Far from it. But he is trying to be realistic about the need for each method, and wants to bring the press capacity in line with that need. And that may mean still more offset equipment in the future, he explained.

To help handle the additional capacity in the offset section, a new camera has been added to the three that were in use when Mr. Blattenberger went to Washington from his executive position with Edward Stern & Co., Inc. in Philadelphia. The

M. L. Visits the World's Largest Print Shop

most recent addition is a 17 x 20" Consolidated camera, which complements three Lanston Overhead units, one 40 x 48" and two 40 x 40". Other new equipment has been added to the platemaking department. The preparation section, moved to new quarters nearer the cameras and presses, is being reorganized by assistant foreman Raymond Geegh.

Historically, letterpress has been the natural process for the Government Printing Office. The G.P.O. was organized in 1861 to take over all the printing for Congress after about 75 years of experience with procurement that was a complete failure, according to Mr. Blattenberger. The *Congressional Record*, published each day that Congress is in session, has been printed at the G.P.O. since 1873. Bills, reports, calendars and records of hearings are also included in the Congressional workload. Most of this nucleus of business is typical letterpress work—fast, short run jobs. The G.P.O. prints for the Departments, too, but Mr. Blattenberger looks on the Congressional printing as his first and most important task.

The *Congressional Record* is still with the G.P.O., and burgeoning bigger than ever. Copy flows in continually from 6 p.m. and continues late into the night. By 8 a.m. the next day, 43,000 copies, sometimes containing as many as 272 pages during talkative sessions, have been printed, bound and delivered.

Offset Growing

But, while letterpress is the obvious choice for the hard core of work coming into the 32-acre plant, offset more and more has been coming into the picture for other work, including long-run government forms, posters, booklets and other jobs. For years, the G.P.O. had been running much of this work by letterpress because there just wasn't room on the few overcrowded offset presses. Now, with the new litho equipment, work doesn't have to go to letterpress by default.

Another factor stimulating growth of the offset side is the recognition by government agency printing of-

ficers of the advantages of offset for many types of work.

Because these printing "customers" are better informed about the offset process, the copy they submit for the camera is in much better shape, according to the preparation section.

ML Tours G.P.O.

A tour of the G.P.O. offset section is quite an exciting experience. Edward E. Burgee, foreman of the offset division, took ML on one. Strippers, opaquers and platemakers



Dr. Roy B. Eastin

by the dozens were at work at long rows of desks, tables and benches. But the most awe-inspiring sight is a row of litho presses (25 in all) stretching as far as you can see in the offset press section. To the observer, it would seem that here are enough presses to print every word, official and unofficial, that comes out of the government. But that is not the case. Another section of the newest G.P.O. building (constructed in 1938) contains 15 additional offset presses, including most of the new ones. And then there are the 140 or so letterpress units, not to mention the three giant Cottrell web presses that print the *Congressional Record*.

But that still isn't the whole story. Of the \$74 million in charges for work in 1955, \$20 million worth was procured from commercial sources. (See ML, January, page 46, for an article on government offset shops.)

The dramatic story of Mr. Blattenberger's savings to the taxpayers is widely known. It has been reported

in MODERN LITHOGRAPHY and other trade magazines. Last summer the general public was informed of it in a two page article in *Reader's Digest*.

Vital Statistics

Here are some other vital statistics about G.P.O. that may not be known by every lithographer:

- The plant started in 1861 with 350 employees. Today there are 6,200 on a 24-hour production schedule, with an annual payroll of \$32 million.

- The G.P.O. operates 378 typesetting and casting machines and has complete facilities for everything from single-page forms to case bound books. (Included in the equipment is the first Intertype Fotosetter, used for phototypesetting, primarily for forms.)

- G.P.O. produces the printing (either in its own plant or by procurement) for the Congress, the executive office, the judiciary and every executive department, independent office and establishment of the government.

Others assisting in the operation of the offset section of G.P.O. are Lawrence Hale, assistant foreman, platemaking; Fred Thierauf, assistant foreman, negative section; and Walter McEwen, assistant foreman, offset press room.

'Wouldn't Take a Nickel'

The Public Printer has high praise for his staff. He has richly enjoyed the experience of directing the mammoth operation for the past three years. In the latter case, his attitude has made a complete turnabout since his days in private industry.

"I wouldn't take a nickel to get into this job," he declared, "but once I was persuaded to take it the experience has been worth a million dollars."

Mr. Blattenberger's appraisal of the value of his three years as Public Printer must of necessity be an intangible one. Not so the \$11,000,000 in capital funds that he has returned to the U. S. Treasury in the past three years.★

NAPL Panel Answers Questions

On Presensitized Offset Plates



Presensitized Plate Panel: (l.-r.) Chester H. Gramstorff, S. D. Warren Co.; Michael H. Bruno, LTF; M. E. Gebhard, Minnesota Mining & Mfg. Co.; Hamilton C. Carson, *Modern Lithography*, presiding; E. B. Fritz, Azoplate Corp.; W. Gaylord Carrothers, Remington Rand; Cal D. Harman, Lithoplate, Inc.; and Garson Wolitzky, Ozalid Corp.

Presensitized Plates Panel

PRESIDING: Hamilton C. Carson, editor, *MODERN LITHOGRAPHY*. **PANEL MEMBERS:** E. B. Fritz, Azoplate Corp.; M. E. Gebhard, Minnesota Mining & Mfg. Co.; Chester H. Gramstorff, S. D. Warren Co.; Cal D. Harman, Lithoplate, Inc.; Garson Wolitzky, Ozalid Corp.; Michael H. Bruno, Lithographic Technical Foundation; and W. Gaylord Carrothers, Remington Rand.

The consensus at this panel on presensitized plates was that they are here to stay, and in no minor role. Lithographers in the audience indicated that they have received good results and are satisfied with the plates. Only about 10 percent of those in attendance never had used presensitized plates.

Discussions throughout the session centered on shelf life, length of runs, surface quality, plate thickness and correction methods.

In his introduction, Mr. Carson quoted from a series of articles on presensitized plates which ran in *MODERN LITHOGRAPHY* in February, March and April of this year. He stated that an ML survey revealed that the majority of lithographers questioned have used or are using presensitized plates.

Mr. Bruno pointed out that while presensitized plates are relatively new to lithography, they are one of the

most important advances in improving the quality of lithography. He emphasized that "presensitized plates are bridging the gap between the quality of small and medium sized plants, and the quality of large plants."

He defined one type of presensitized plate as a plate with an aluminum or paper base sensitized with a diazo coating. At this point he demonstrated the principle of this type of plate by treating an aluminum strip with a diazo solution. The aluminum strip had been pretreated. In the actual manufacturing of presensitized plates, he cautioned, there are 14 stages or steps for the treatment of the metal which is the base. He also advised against "amateur manufacturers" who might think the process simple enough to perform in their plants.

Some of the advantages which were noted were the extreme receptivity which the aluminum base gives to the background of the plate. Also, in the use of presensitized plates, scum is almost a thing of the past, except for ink dot scum, which is caused by leaving the metal wet for too long a period. Presensitized plates, however, are subject to more wear than zinc plates. Any abrasive

wears the image at a faster rate than the conventional plate, but since the average run is 20,000 or less, the problem is not one to be considered heavily.

In predicting the future of presensitized plates, Mr. Bruno stated in his opinion all plates used in lithography in the next five to 10 years will be presensitized in one way or another.

Some of the more pertinent questions and answers covered by the panel and audience follow:

Q. In presensitized plates, is there any experience for or against gums in the fountain solution?

Bruno: There is no information for or against gum. Gum is used in all plates. With aluminum plates, there is an advantage if a nitrate is in the fountain solution.

Q. With some presensitized plates we have trouble with halation. What is the cause?

Harman: Perhaps the flat has been stripped up and the fit is too tight. Use a clear piece of acetate in the vacuum frame. It will allow for a slower vacuum operation—which might prevent the buckle.

Q. Since they (presensitized plates) all are grainless, why isn't there a treatment to give the plate some sort of tooth?

Fritz: Enco is not grainless. It is a brushed grained plate. **Harman:** Lithoplate has a controlled grain. **Gebhard:** With a smoother plate it is easier to get the diazo coating off.

Q. Can they be re-run? Is there a storage process?

Harman: Follow the procedure of storing zinc plates, with one exception—wash the plate with asphaltum before storing. **Carrothers:** For storage use a 14 Be gum solution, cut in half.

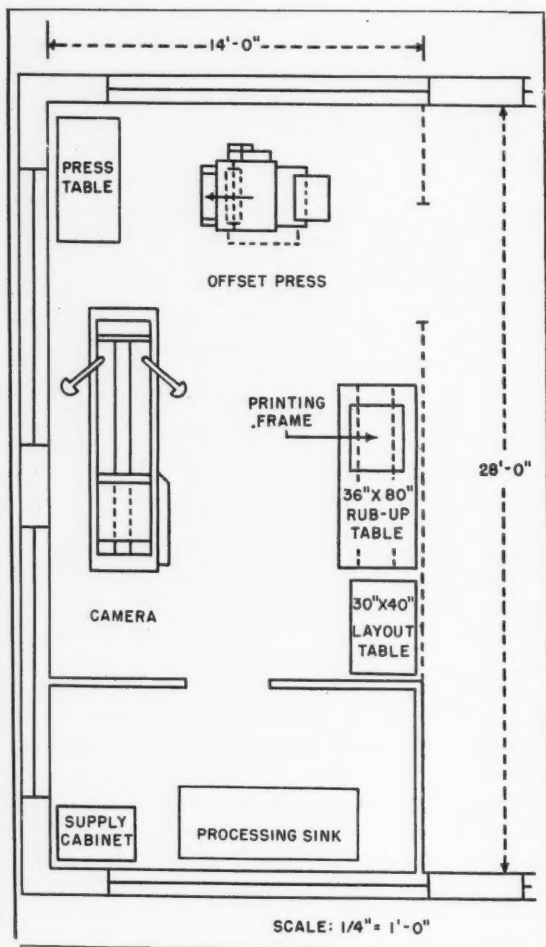
Q. How may deletions or revisions be made?

Fritz: Use a rubber eraser for deletions on the Enco plate. Enco has an image remover which may be used before or on press. It is applied on a dry plate, then rubbed off. It is very hard to add something to the plate but sometimes it can be done by the

(Continued on Page 159)

Three Offset Floor Plans

The folder, "Planning Your Offset Department, from which these floor plans have been reproduced, is available from American Type Founders, 200 Elmora Ave., Elizabeth, N. J. As presented in the folder, the floor plans are adapted for ATF equipment.



FLOOR plans for offset shops and for offset departments of letterpress shops are much in demand.

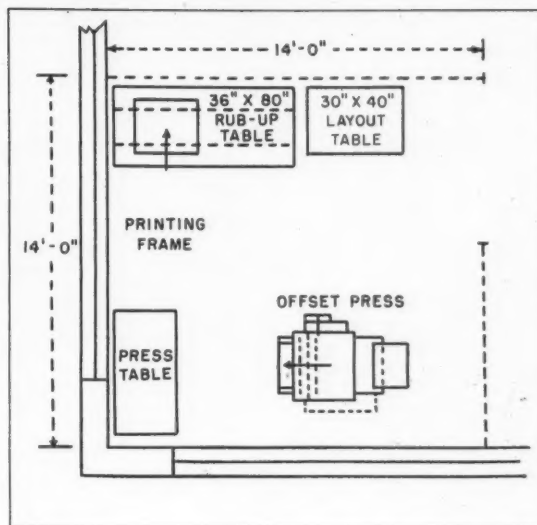
MODERN LITHOGRAPHY has received numerous requests for information of this type in the past year, quite as many from lithographers getting ready for expansion as from letterpress printers contemplating an entry into this field. Such plans are not easy to come by. So many litho plants have expanded so rapidly that they have not always been able to alter their plants in just exactly the way they would have liked to for most efficient production. As a result, examining floor plans of plants of this type might be misleading to a lithographer looking for the best possible way to add new equipment.

A smaller number of firms, however, have been fortunate enough to move into entirely new plants, where they were free to place equipment in the most beneficial way, or were able to revamp their existing plants thoroughly enough to achieve the same results.

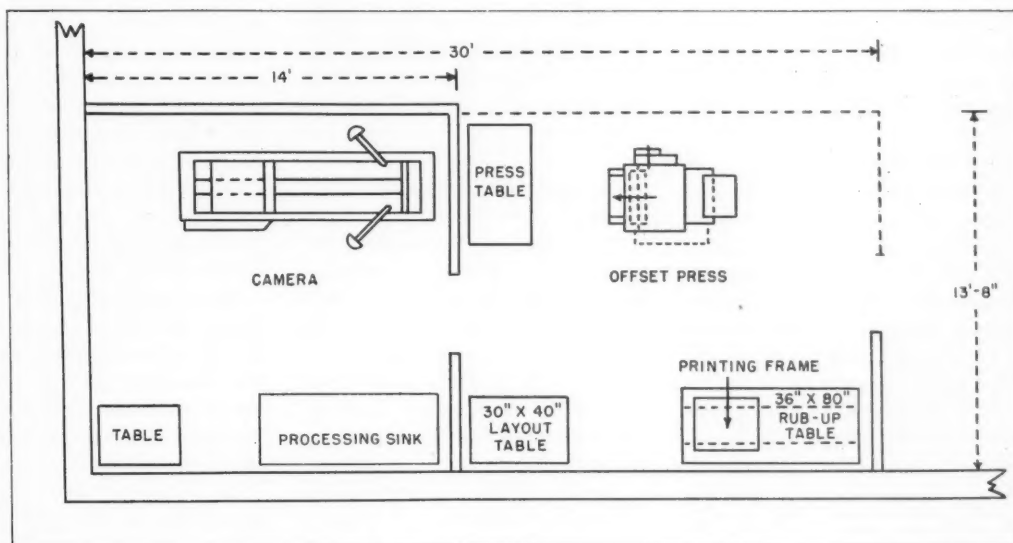
The three plans on these pages are designed primarily for the letterpress printer wishing to make a modest start in offset. The smaller litho shops also may find them valuable guides for planning. They are printed here with permission of American Type Founders, who prepared them. Plans "A" and "C" include complete camera and platemaking equipment. Plan "B" includes platemaking equipment, but eliminates the camera and developing units, for the printer who wants to purchase his negatives outside the shop. All three are based on the use of presensitized plates only.★

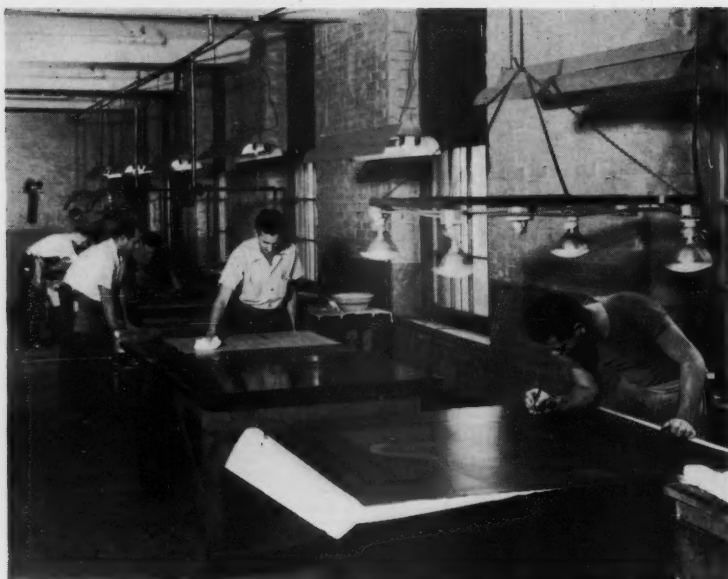
Plan A—Camera is located outside the darkroom, with operator's end near the darkroom door, saving steps when loading or unloading the filmholder. Darkroom is 7 x 14'. Stripping and masking are done on the layout table, near the door, adjacent to the printing frame. Cabinet-type press table is at the delivery end of the 14 x 20" press.

Plan B—Smaller layout for a low budget operation. There is no camera or dark-room, so negatives must be bought outside. Plate is exposed and printed on the same table, which is 36 x 80". As in the other plans, the press is size 14 x 20", but a 17 x 22" press may be substituted if the nature of the work warrants it.



Plan C—Camera is in the darkroom here, saving steps but making it impossible to do camera work and developing at the same time. Other units, as in plan "A," are placed in line so that the job can be routed smoothly through the press room.





Platemakers at work in the Zabel Brothers Co. shop in Philadelphia.

Developments

By *Bernard Sears*

President,
Graphic Arts Corporation of Ohio

SINCE 1922 I have had an opportunity to watch the development of all types of reproduction plates, particularly Lithographic plates. Methods and tools have changed. Today our industry is big business, and with the help of manufacturers and research organizations such as the Lithographic Technical Foundation, there is no excuse for any shop not having the up-to-date know-how. But the most needed change is in our attitude towards these improved tools, materials and methods which provide economy and better quality.

As a craftsman, do you accept such improvements without first challenging their proven usefulness? Some craftsmen are always doubtful. The ones that readily do accept new ideas are the very ones that will give you the toughest and keenest kind of competition. As the old saying goes, "Necessity is the mother of invention," so therefore, "competition is the mother of ingenuity and resourcefulness." One fact in your favor is the great flexibility in preparing negatives and positives for lithographic work. You have several procedures to choose from for the same job. If you

understand them all you are better equipped to engineer the job properly.

Now let's take a look at some of the modern improved methods, materials and tools in lithographic plate making.

Let's start with the camera operation. New stable base photographic films will assure register for color work whether two, three or four colors, where heretofore glass was felt necessary. The emulsion on these films is excellent for camera exposures as well as contact exposures. Contacts may be dot etched if desired, with amazing success. There are several of these films on the market.

With regard to camera lighting, the present day motor driven arc lamps save on electrical current and carbons, at the same time giving more intense light for shorter exposures. The Unitronics cold cathode lights prove excellent for making black and white screen positives or negatives from continuous tone cutouts. They provide faster exposures with uniform lighting from top to bottom and corner to corner, besides eliminating carbon dust, which has been more or less of a nuisance in any camera department.

Camera Composition

Camera composition of intricate color work in the place of wet or dry

stripping has greatly improved the quality of such delicate inserts without increasing the lapse of time for this operation. This unique method of assembly is done by first shooting the continuous tone negatives to the respective size called for on the layout. Then, by a means of chases and pins the negatives are set to register along with in-and-out masks, so that they can be photographed to position at the time the screen positive is made.

Not only is this more accurate, but it also eliminates the horrible strip lines which so often appear with wet or dry stripping. The same method provides an economical and convenient way to shoot out reverse type and shoot in positive type so that the end result of the finished plate is neat, without film edges to turn up and collect dirt. Any shop involved with this type of complicated color layout work should investigate this method of assembly.

Use of autopositive films (Eastman Kodak) for making reverses directly on the camera is another short cut overlooked by so many shops. So is the process of making reversals, (positives from positives) for certain trick procedures.

Exposure time on the camera can be reduced not only with improved lighting but by employing the one

From a talk given at the 37th annual convention of The International Association of Printing House Craftsmen, Los Angeles, Aug. 13.

In Lithographic Platemaking

stop exposure system with the conventional glass screen, instead of using two or three stops. The one stop system will greatly improve detail in your offset negatives. Also, the use of contact screens is universal today and has been a big boon to the making of negatives and positives. The contact screen provides much greater control and latitude of high-light, middle tone, and shadow. Poor copies can be manipulated to give good results and good copies will give excellent results. With the use of contact screens, offset printing no longer need bow to letterpress printing because of poor halftones.

The use of high-light and outline masks gives accurate results without the need of hours of opaquing that it sometimes takes on intricate work. Many jobs can be high-lighted, using a high-light mask, that would be impossible to high-light by hand opaquing.

The use of the Time-Life scanner is another short cut to faster and sharper four-color work. The service is fast, and grouping of small transparencies makes it very economical.

Glass Prints Have Advantages

The use of glass prints, also known as Photolacs, for multiple negatives and/or positives has many advantages. Do not be misled by the old idea that Photolacs are not dependable. They used to fade out, they were not opaque and usually turned to a brown or amber color. But the present day Photolacs now on the market are as black as your hat, as black and opaque as any silver emulsion, and will not fade. Photolacs for

multiple negatives and positives can be made on the ordinary composing machine without darkroom precautions. You will find this will give more exacting likeness to the original subject, particularly in halftones where contacts to silver emulsion usually result in an increase in contrast.

Stripping Department

Offset stripping first employed the stripping of films on orange paper,



Bernard Sears

as well as tacking films to position on blue key glass. This is commonly referred to as "dry stripping" and it is probably the most commonly used method of stripping offset negatives and positives today. However, outside of the simple type of lithographic forms, other methods are much better. Today the percentage of deep-etch plates exceeds albumen plates, making it necessary to have positives instead of negatives. Therefore the use of double printing methods in preparing your film positives provides for much

neater work, permits closer inserting and does away with the old hazard of out-of-contact prints due to overlapping tape or film. Also, the more up-to-date methods of stripping and assembly are better if the positives have to be stored for long periods.

There are many intricate jobs that could never employ the dry stripping method. When these arise, experience in the handling of strip film is most necessary. Stripping wet films to blue keys is a very useful means of assembling intricate layouts. Another advantage in this procedure is the ability to strip color work on blue keys using wet films on the portions that require camera positives and then blackening in other portions of the key image such as type heads, reverse panels, etc. The strip film is micrometer thin and does not interfere with contact.

If a firm is equipped to do either camera composing, wet stripping or film double printing, there is no job too difficult that can not be produced with good results. The superintendent engineering the job and knowing these procedures can easily make the decision when the job goes into production.

With regard to the dot etching department, it is necessary that dot etching, whenever done, be done properly. Many mistakes are made by dot etching before a careful analysis has been made. Don't dot etch an area if it doesn't need it. However, where dot etching is carried on, good staging and staging solutions are most necessary. Staging solutions that adhere to wet emulsion without permitting the cyanide solutions to under-

cut or curl the edges are available.

Jones Graphic Products has an improved staging varnish that adheres well to wet emulsions, remaining flexible. It can be removed without staining or injuring the photographic plate. It brushes on easily and permits the staging of delicate and fine lines with accuracy.

The use of improved intensifiers to restore areas that have been etched slightly too far also are on the market. These intensifiers are dependable and should be used whenever it is necessary to save a job from backing up to the camera. The old method of staining cutouts is pretty much frowned on today. However, there are neutral dyes on the market that, when properly applied by experienced hands, provide an excellent method of correcting densities in certain areas. Whenever using such dyes it is best to stage the area before applying the dye, and always immerse the plate in a tray of dye solution. This method of application on large areas assures a uniform layer of dye, whereas the old method of brushing it in generally resulted in a mottled, or out-of-balance condition.

Color Proofing

Color proofing at its best still leaves a good deal to be desired, yet it is a necessary operation. Unless you can afford to do press proofing on the actual production press, it will have to be tolerated. However, certain controls should be exercised in the proofing operation, whether it is on a hand press, flat bed power press or small cylinder press. When using a flat bed automatic inking and dampening press or a small cylinder press, it is best to determine first how close they will duplicate the printing on the production press. Hand presses have an inherent way of adding contrast that cannot be compensated for on the production press. Therefore, care in making the proof plate must be exercised to make the plate as full as the positives (or fuller, if possible) when the plate is rolled up, the ink film should be thick to a point where it still does not fill in the middle tones. The intensity of the ink should be cut about 10 percent

to compensate for the thinner ink film carried on the production press.

The use of the LTF continuous tone step wedge is almost a must as a guide in making proof plates and press plates. When the amount of tolerance needed is determined, the wedge can be followed, for instance, by making the proof plate full to Step 3 and the corresponding press plate made sharp to Step 7.

The careful match of inks to progressive proofs often is overlooked by the press room. Some pressmen feel that if a yellow, red or blue doesn't exactly match it won't make any difference. Therefore, proofing inks are best taken straight out of the can so that the pressmen can use exactly the same ink. It goes without saying that the same stock that the job is going to run on must be used in producing the proofs.

Now we are ready to take a look at the press plate itself. Probably the greatest strides in lithographic plate making have been in this area. Today we have presensitized plates, many of them suitable for short run work from negatives as well as from positives. If your operation calls for work of this nature, it is best to investigate all of them and use the one that fits your operation best. Such presensitized plates can also be found useful and economical in proofing operations. They will save time and money.

Plate Length Increases

In 1926, the national average for an albumen plate was 25,000, the national average for a deep etch plate, which had just come on the market, was somewhat short of 100,000. Today lithure, lithengrave, trimetal and bimetal plates, all of which are technically known as polymetallic plates, are giving runs well beyond one million impressions.

A great improvement in the use of lithographic plates has been in the understanding of the grain itself. Years ago, in order to get a long run lithographers preferred to start with a coarse grain. Fine grains today are in common use, to the point where we have several processes giving excellent work from plates with no grain. When handled properly the

smooth plates will give sharper dots much like letterpress work.

On the new type polymetallic plates, deletions and additions no longer are a handicap. Printing Developments Inc. has worked out a very easy method of replating the chrome surface for deletions. Additions, in most cases, can easily be inserted by re-coating, exposing, developing and etching the new part of the image.

Composing machines are sold by the manufacturers to produce step and repeat or photocomposed plates to register within 1/10,000 of an inch. However, improper lock-up or use of register benches that are out of line will produce improper results.

The lock-up procedure of a positive is simple, but, many machine operators get sloppy. When they view the register mark over the register line they tilt their heads so it does not look perpendicular. This creates an error in register. To prevent this, a simple lock-up magnifying glass purchased from the Rutherford Machinery Co. will assure good register lock ups. Of course, to aid this lock-up, it is necessary that the register marks be kept clean and fine.

The coating of the lithographic plate may appear to be just an ordinary operation, but coating thickness is most important in getting consistent plates. When casting the coating on the plate it has been found that the temperature of the water used in flushing the plate prior to coating has much to do with the coating thickness, as do the speed and temperature of the whirler.

After exposure, developing and etching should be given expert care. Timing and careful examination of the plate are imperative after each of these steps before applying lacquer ink and developing.

Jones Graphic Products Co. recently announced the marketing of a complete line of deep etch chemicals. This line has some unique features. The solutions are color keyed, and developing and etching pads are designed so the handles can be removed for washing or the insertion of a fresh pad. Lacquers used today are of the vinyl type, commonly called

(Continued on Page 159)

GUNG HO!

Made together, they work together

From your first densitometer reading to your final screened negative or positive, it's GUNG HO with Kodak materials for color photolithography.

GUNG HO is a time-honored Chinese phrase which means "work together"—a meaningful idea.

Applied to your work, GUNG HO sums up an important concept in photomechanical reproduction—that the whole is the sum of its parts, which are films, chemicals, halftone screens, filters, densitometer readings, etc.

Kodak materials help make your jobs go smoothly—help take out the petty irritations and time-wasting difficulties of work that is exacting—even when things go well. Most important, Kodak materials help you deliver results and service that build lasting customer satisfaction.

Listed below are some of these fine Kodak materials made expressly to meet the exacting needs of color lithography. Your Kodak dealer has them. Your Kodak technical representative will gladly demonstrate them in your own shop and explain their correct application to specific problems.

1. Three-in-one densitometer

You can take accurate readings on reflection or transmission copy, or read comparative values right on a camera's ground glass with the Kodak Process Densitometer, Model 2. This versatile instrument works on or off its base to accommodate copy of any size, and head and transformer can be carried about as a portable photometer for camera readings.

Get the full story, in words and pictures, by writing for "The New Kodak Process Densitometer, Model 2."

2. Separation filters

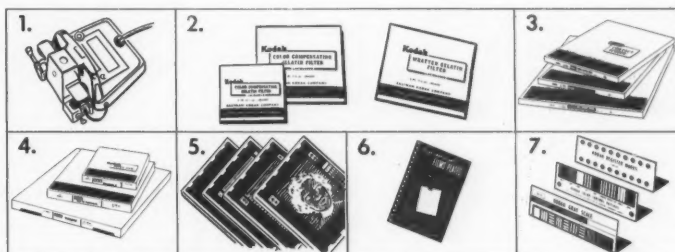
Unmounted gelatin filters give you the best possible transmission characteristics for color-separation work. Made especially for critical graphic arts use, they are called Kodak Wratten Photomechanical Filters. The simple tables below show the Kodak filters most often recommended for both the direct and indirect methods of color separation:

Indirect Method	
Printer	Kodak Wratten Filter No.
Cyan ("blue")	25 or 29 (red)
Magenta ("red")	58 or 61 (green)
Yellow	47B (blue)
Black	28, 8, or 88A
Direct Method	
Printer	Kodak Wratten Filter No.
Cyan ("blue")	25 (A) (red)
Magenta ("red")	58 (B) (green)
Yellow	47B or 47 (blue)
Black	8 (K2) (yellow)

3. Contact Screens

For the indirect method of color separation, there are two basic screens. The Kodak Magenta Contact Screen helps you control contrast by using color filters. The Kodak Gray Contact Screen gives you the same basic advantages as the Magenta Screen—better tone

Text for this advertisement was set photographically.



reproduction, shorter exposures, sharper screened negatives—plus a neutral-gray color which adapts it to the direct method of color separation also. Contrast control with the Gray Screen is accomplished through agitation, flash, or supplementary highlight exposures.

Films and plates

Kodak films and plates for the graphic arts come in all conventional sizes, give you a variety of emulsions for continuous-tone or line copy, built-in halftone screen, reversal characteristics, etc.

For example, the Kodak color-separation films and plates listed below are ideal for the indirect method...

4. If you need the stability of glass Kodak Plates	If you prefer film Kodak Films
5. Separation Negative, Type I Tri-X Panchromatic, Type B Kodak 33	Panatomic-X Super-XX Panchromatic Commercial

...and give you comparable, though not identical, photographic characteristics.

For the direct method of color separation...

- Kodalith Pan Film
- Kodalith Pan Plates (maximum dimensional stability)

- Kodalith C.T.C. Pan Plates (extreme speed)
 - Kodak Autopositive Film (for lateral reversal without stripping)
- ...are excellent materials.

6. The Kodak Graphic Arts Data Book "Kodak Graphic Arts Films and Plates" gives you complete data, costs just 75¢ from your Kodak dealer. Or you're welcome to send for a free copy of "Kodak Materials for the Graphic Arts." It discusses films, chemicals and processes, but is not as detailed as the Data Book.

7. Separation Guides

To help you control color and register, try Kodak Color Separation Guides. The package contains a Kodak Gray Scale, Kodak Color Control Patches, and Kodak Register Marks, in 7- and 14-inch sizes for \$1.15 and \$1.50, respectively. You may also want a Kodak Neutral Test Card for reflection measurements.

Data Book

We've recently prepared a new Kodak Graphic Arts Data Book for inclusion in the Kodak Graphic Arts Handbook. It's called "Kodak Color Separation from Reflection Copy" and is packed with useful facts. Your copy costs just 75¢. Buy it from your Kodak dealer.



Graphic Reproduction Sales Division • EASTMAN KODAK COMPANY, Rochester 4, N. Y.

They're miles ahead!



You get the
big improvements first in
MERCURY PRODUCTS



Genuine
Mercury blankets
are made only by
Rapid Roller Company.
Look for the green
stripe on the back.

Ever since the infancy of modern photo lithography, Rapid Roller Company research has been continuously developing important improvements in lithographic blankets and rollers. To keep your shop up to date, always specify Mercury rollers and blankets.

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IMPORTANT: There Are NO OTHER
Rapid Roller Company
Branches or Factories

MODERN LITHOGRAPHY, October, 1956



Glessner House, ivy covered relic of Chicago's high society of another era, houses the progressive research efforts of the Litho-

Inside Story of Litho Research



graphic Technical Foundation, which has been contributing improvements to the litho industry since 1924.

By H. H. Slawson
Chicago Correspondent

LITHOGRAPHIC Technical Foundation, the only endowed, non-profit research and educational institution of its kind in the world, has been laboring since 1924 to advance lithographic progress for the benefit of all in the industry. Full realization and appreciation of the Foundation's contributions to this end has come, however, only in the decade since its research activities were transferred from Cincinnati to Chicago.

With the move the term "Glessner House" entered the industry's vocabulary as an everyday household word and LTF research has acquired thereby a personality that has served well to popularize the Foundation's activities as no other factor could have done.

Located at 1800 Prairie Ave., the 36-room mansion is a fading relic of Chicago's high society of the "Gay '90's." Reborn as LTF's research center, there has come from within the time-darkened granite walls of this historic building an amazing array of knowledge intimately affecting the daily problems of lithographers everywhere. Here some two dozen research specialists

have come up with "positive answers to previous guesses" whose monetary significance, as reflected in quality improvement of lithographic reproduction, is immeasurable.

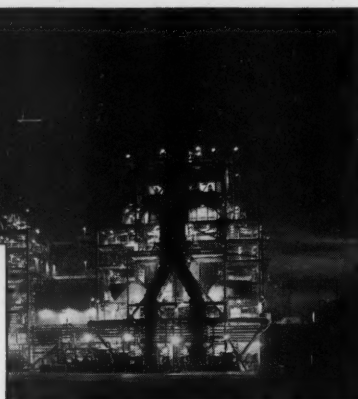
Time and again craftsmen express surprise on learning that things they now do daily, methods and tools in common use today, originated through LTF research. The results of that research are found in every element of lithographic operation, in plate making, pressroom and camera work, in blankets, paper and ink, in new understanding of the physical factors affecting quality. Coupled with all this is an educational and training program to aid the industry in putting the laboratory's findings into practical use.

A big step was taken recently when the Foundation's board increased its budget allowance for research. Fore-shadowed by that is an intensified effort to "make the best better," with every assurance that results to come will surpass all past achievements.

The accompanying pictures on the next two pages convey some idea of what goes on at Glessner House for your good.

▶ ▶ ▶ ▶ ▶ ▶ ▶ ▶ *An ML Picture Story of LTF* ▶ ▶ ▶ ▶

SOUTHERN CALIFORNIA EDISON COMPANY
EDISON BUILDING • P.O. BOX 351
LOS ANGELES 22, CALIFORNIA



Mild climate permitted economical open-air construction for the giant 280,000 kilowatt Southern California Edison Etowanda Steam Station.

A powerful reason for Quality!

Every letter signed in your office carries two messages ...its written words, and oftentimes more important, a significant impression of your corporate character. For example, a handsomely simple design on a quality Strathmore Paper underscores the dependable reputation of the Southern California Edison Company. Have your supplier show you samples of Strathmore Letterhead Papers. See for yourself the difference a quality letterhead makes in a powerful portrayal of your company.

Southern California Edison Company supplies low-cost electricity to nearly a million-and-a-half customers. Its twenty-four hydro-electric plants, some located in the High Sierra Mountains, and eight fuel-powered plants, have a generating capacity of well over two million kilowatts to supply power for residential, commercial and industrial use.

STRATHMORE LETTERHEAD PAPERS: STRATHMORE PARCHMENT, STRATHMORE SCRIPT, THISTLEMARK BOND, ALEXANDRA BRILLIANT, BAY PATH BOND, STRATHMORE WRITING, STRATHMORE BOND. ENVELOPES TO MATCH CONVERTED BY OLD COLONY ENVELOPE CO.

STRATHMORE THIN PAPERS: STRATHMORE PARCHMENT ONION SKIN, STRATHMORE BOND ONION SKIN, STRATHMORE BOND AIR MAIL, STRATHMORE BOND TRANSMASTER, REPLICA.

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ADVERTISING
REQUIREMENTS**



1. Among equipment valued at \$190,000, this modern pH meter typifies the many special instruments available.

2. Precision device measures surface tension.

3. This equipment, one of many custom built devices, is used in studying sensitivity of plate coatings.

4. Work with (3) led to development of LTF sensitivity guide.

5. Special facilities, utilizing radio-active tracers, tackle tougher problems.

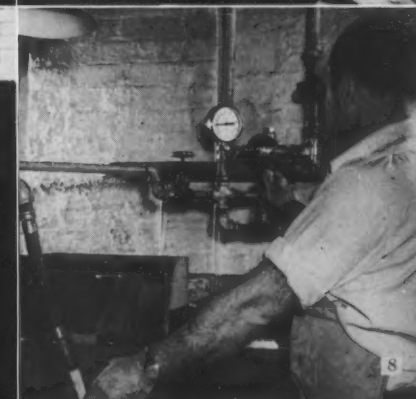
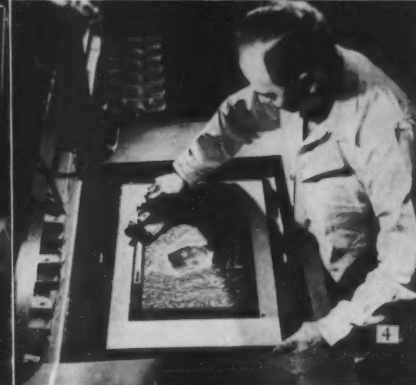
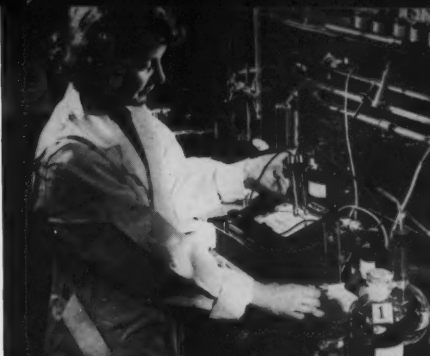
6. Accurately measuring the effects of tracer treatments.

7. Platemaking equipment includes an integrating light meter and motor-driven carbon arc lamps.

8. Also automatic water temperature controls.

9. This No. 29 Miehle is one of three commercial size presses used.

10. Printing quality factors are studied with the recording densitometer — only instrument of its kind in the world — developed by LTF researchers.

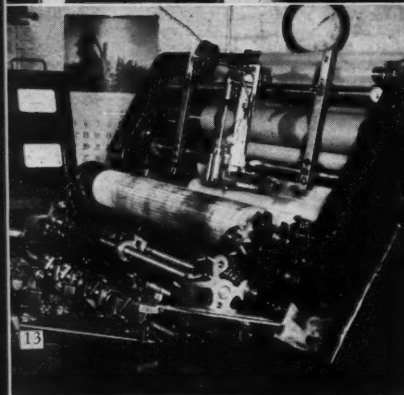




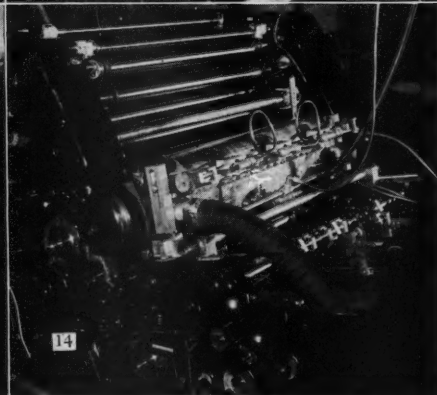
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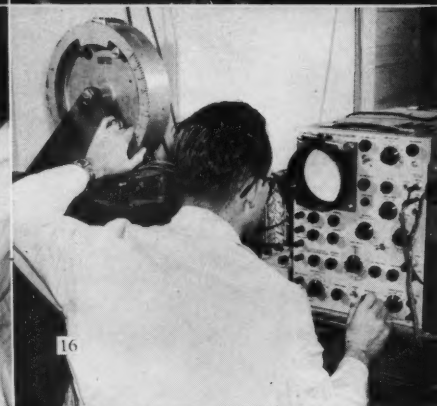
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16



17



18



19



20

11. Electroplating equipment handles plates up to 17 x 22".

12. With it the LTF copper-aluminum bi-metal plate was developed.

13. The LTF press inkometer gives a continuous measurement of ink tack during run.

14. This experimental spray dampener was built to replace dampening rollers.

15. The LTF pick tester is the most accurate instrument for predicting pick troubles on the press.

16. Pick tester and Land camera equipped with oscilloscope, used to learn what happens when ink is transferred from blanket to paper.

17. Modern 24" precision camera with three lens turret and oscillating transparency holder, used for process photographic studies.

18. The lab's most precious possessions are the researchers' note books. Every night they are stored in a fireproof safe.

19. Press sheets of tests are cross-indexed, permanently bound and filed in special cabinet.

20. Edward J. Martin, (left) supervisor, Michael H. Bruno, research manager, and Dr. Robert F. Reed, research consultant, confer on problem submitted by a Foundation member.

SIEBOLD BLANKETS



**ALWAYS give you
PROTECTION**

**because they're
"BEST BY TEST!"**

Tested under many different conditions by the most critical Lithographers, Siebold Blankets meet every requirement for minimum embossing or debossing and provide perfect dot reproduction.

"Over a half-century of service" to the most exacting users results in continued reorders of these outstanding blankets. A single order will prove their quality and worth to the most skeptical. Guaranteed to give complete satisfaction. Available in silver-grey or red.



MEMBER: Lithographic Technical Foundation
— National Association of Photo
Lithographers— National Association of
Printing-Ink Makers— National Printing-
Ink Research Association—
N. Y. Employing Printers
Association.
SIE 2997

"OVER HALF A CENTURY" OF SERVICE

J. H. & G. B.

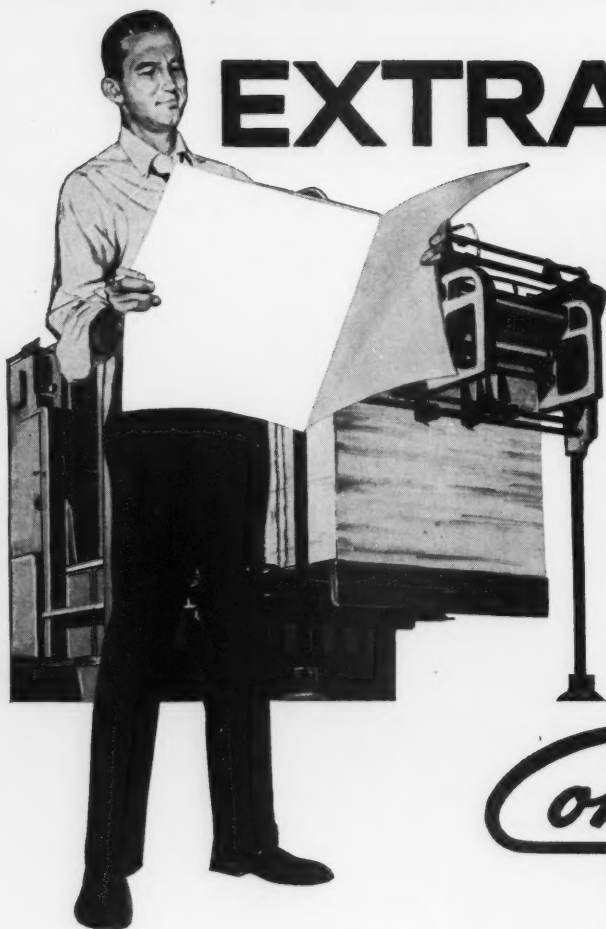


EVERYTHING FOR THE LITHOGRAPHER
PRINTING, LITHOGRAPHIC INKS AND SUPPLIES
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DOUBLE COATED

OFFSET...AT NO EXTRA COST!



***High dimensional stability . . . trouble-free
press performance . . . quick ink setting . . .
superior pick resistance . . . brighter color!***

These are just a few of the *many* performance advantages double coating now offers in the complete line of Consolidated Enamel Offset Papers—PRODUCTOLITH, CONSOLITH GLOSS and CONSOLITH OPAQUE.

And you get them all at *no extra cost* because Consolidated, the company that pioneered modern on-the-machine enamel papers, now offers offset papers *double coated on both sides* in a single high-speed operation on the papermaking machine.

FREE TRIAL SHEETS! Ask your Consolidated merchant to supply paper for a test run. Compare performance, cost and results. Grade for grade, you'll see why this streamlined double coating method makes Consolidated Enamel Offset Papers today's best offset values!

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NAPL Saturday Technical Quiz

Handles Many Paper Problems

CONTINUED interest in problems with offset paper was indicated at the all day technical session on Saturday which once again was moderated by William J. Stevens, Miehle Printing Press & Manufacturing Co.

Other panelists included the following: TECHNICAL—Michael H. Bruno, Lithographic Technical Foundation; PRESS—Joseph B. Medio, Brett Lithographing Co.; FILM—Harold Potts, Eastman Kodak Co.; PAPER—A. P. Reynolds, S. D. Warren Co.; and INK—Richard H. Scott, Sinclair & Valentine.

Many of the questions asked these panelists dealt with paper problems. Several others, which did not deal directly with paper, nevertheless stimulated discussion about the part which paper played in the particular problem.

Following are some of the questions handled by the panel:

Q: On a four color job a light blue color developed over the entire background of the image. What caused it? The ink had no lead dryer.

A: If the colors were not trapping properly they may have irritated the plate. This situation could have been caused also by a water-sensitive paper, according to another panelist, who said that water sometimes softens the coating on the paper, transferring it to the second color.

Q: We had a run of paper which produced scum on the paper but not in the ink area.

A: Acidity can cause scumming more often than anything contained in the paper. Changing the pH in the fountain solution can have a big effect on the printed result area.

Q: What is the procedure to produce a spreading of the image to get an overlap for color?

A: You can use the technique known as "spinning." Put the light

source about three times as high as it is to the right or the left and interpose a spacer between the film and the copy. This overlapping also can be done by overexposure using the spacer and it can be done also at the platemaking stage if preferred.

Q: What do you think of one step exposure as against a three or four step exposure?

A: For the particular job mentioned, a one step exposure was not recommended because low contrast originals were involved.

Q: In using paper dampeners, how wide a strip should be used and how should it be fastened?

A: A strip of parchment four inches wide should be used with a four inch diameter core. It can be fastened quite readily with a rubber band and the overlap will be between 1/8 and 3/16".

Q: Will you discuss the cause of paper wrinkling in offset?

A: In offset, paper is subjected to pressure from the entire plate, not just from the printing area as is the case in letterpress, so that much more pressure is exerted on it. Sometimes this pressure can be relieved by cutting the packing, but in multicolor work care must be taken to cut packing the same amount for all four impressions.

Q: Should we condition all paper in the litho shop?

A: Not unless absolutely necessary.

Q: Are bi-metal plates being used successfully and if so, where can I obtain them?

A: Mr. Stevens advised that virtually all plate dealers can supply a list of the manufacturers of these plates.

Q: Is there any loss of quality of the web fed press as against a sheet fed press?

A: The web quality usually is lower, but in the last few years quality has come up. This is a tough comparison to make because the web usually is in competition with letterpress. Letterpress uses cheaper inks and paper so web offset, in order to get letterpress business, has to have a higher quality than letterpress. In comparing web and sheet fed in offset you would have to have the same quality paper and inks before a comparison could be made.

Q: Have the phototypesetting machines reached the point where they can do a variety of jobs in the average litho shops?

A: I know one shop owner who does all his work with a phototypesetter, except the necessary hand operations. (Other opinions from the floor indicated that additional work must be done when a phototypesetter must be used, and that hand operations are still necessary.)

Q: Is it possible to get a scum on a tri-metal plate with an aluminum base only in the screen area? What are the causes and what are the remedies?

A: The main cause probably is dirty dampeners, although there could be many other causes. To cure the

(Continued on Page 155)

Saturday Quiz Panel: (l.-r.) Reynolds, Scott, Potts, Medio and Bruno. Not shown, moderator Stevens.





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Die-Cutting and Embossing

what it is and how YOU can do it

By Basil M. Parsons

Thomson-National Press Co., Franklin, Mass.

TODAY there are several types of machines used for die-cutting operations, both hand-fed and automatic. Now we even have machines which include automatic stripping of the waste. This automatic stripping is a highly important and modern feature.

In considering this subject, let us discuss make-ready for cutting and creasing. Because my personal experience for 37 years has been with presses of the platen type and because there are more of these in use than cylinder presses, we will talk about that type of make-ready. You may have a 12 x 18" or 14 x 22" converted printing press — a machine which originally handled printing but now is used only for die-cutting. Several manufacturers today make presses of this size for cutting and creasing only in hand-fed and automatic models. In the larger and heavier platen cutters and creasers, the sizes run from 20 x 30" up to 44 x 66". They are, or should be, equipped with a very hard steel plate on the face of the moving platen, against which the cutting is done. A very hard steel cutting plate is needed—not a piece of sheet iron or a brass plate because they are too soft. You don't want to cut sheet iron or brass with your good cutting die, and you don't want to dull the edges of your new cutting die on the first few impressions.

You want to make-ready properly and you want to get a "kiss impression" exactly as you do when you

From a talk presented at the 37th Annual Convention of The International Association of Printing House Craftsmen, Los Angeles, Aug. 13.

More and more lithographers are becoming interested in die-cutting and embossing, because of their increased use in advertising displays, cut-outs, greeting cards, sales promotional booklets, toys and games and even automobile door panels. Mr. Parsons tells, step by step, how to do each of these jobs in your shop, using a converted letterpress unit or automatic equipment especially designed for the purpose.

are making ready for a fine printing job. You would not think of allowing type or cuts to "punch" into your good paper. Your customer would not accept such a poor printing job. In cutting and creasing, your make-ready must be performed in exactly the same careful manner and with practically the same methods you use for printing. With a platen press, the steel-rule cutting and creasing die will be locked up in the chase and treated the same as in a normal printing form.

How To Start

We will assume that your cutting die is made of what I generally call standard .937" cutting rule. It is true that lower heights of cutting rule are and can be used, such as .923", but usually it is well to standardize on .937" and I think most die-makers will agree as far as platens are concerned. The next step is to set back the impression a bit, fasten a sheet of the cardboard, or whatever material is to be cut, to the face of the steel cutting plate and close up the press

slowly to get the first impression. If no impression appears, the next step is to bring up the impression adjustment until the cutting knives mark the sheet. This will determine the evenness of the impression. Because there will generally be a few low spots, a sheet of manila paper can be placed underneath the steel cutting plate and used for "patching" exactly the same as for making ready for printing, using small pieces of gummed tape. Another test can then be made with the material to be cut, and make-ready by "patching" should continue until an even cutting impression has been obtained with a minimum amount of packing under the plate. This procedure will definitely permit a "kiss impression" and without permitting the cutting knives to impinge on the surface of the hard steel plate. In this way, you get clean and even cutting without damaging the cutting die or the plate.

We have covered in very brief form a simple procedure for make-ready when we have a die for cutting only, and no creasing. Now let us go through this again with a die that combines both cutting rules and creasing rules.

The initial step in preparing a good creasing make-ready is first of all to see that the surface of the steel plate on the platen is very clean and free of grease or other foreign substances. Next glue a sheet of hard pressboard to the face of the steel plate on the platen. Sometimes a sheet of the actual cardboard to be cut and creased is satisfactory for starting this operation.

Ink up the creasing rules only, turn the press over by hand or "inch" it

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over by power, and your creasing rules will mark the sheet of pressboard and give you the exact location for creases, at the same time (if you have enough impression) showing the location of the cutting knives which, of course, will mark the sheet. When the impression for cutting shows up evenly by patching the spot-up sheet underneath the steel plate, you are ready to proceed with cutting out grooves or channels for the creasing rules from the sheet of pressboard glued to the plate.

A straight-edge and a sharp make-ready knife are necessary because you are going to make the "female" part of the make-ready into which the creasing rules will push the sheet when you are cutting and creasing simultaneously. See that these grooves or channels are very carefully cut out and kept perfectly straight and even. Ordinarily, the width of the channel should be about twice the thickness of the creasing rules, although this depends on the thickness and nature of the stock to be cut and creased. A little experimentation will tell you exactly the type of crease you need for the particular job at hand. After these channels are carefully prepared, you proceed to cut away cleanly all dead pressboard where the cutting rules strike. See that clean edges are left on the remaining pressboard so that the entire creasing counter or creasing make-ready is neat and smooth. Finally, coat the entire counter or make-ready with a good grade of orange shellac, or light varnish, to give it a smooth finish and thus preserve it until the run is completed.

When the job is done, and there is a chance that a customer may want to repeat it at some later date, the steel plate with the creasing counter can be filed. It will be ready for use again on a repeat job with very little loss of time. This means buying extra steel cutting plates for your platen press. This idea generally is known as the "lift method" and is valuable for repeat runs. Of course, with this method, you should also preserve the "spot-up" sheet which you prepared underneath the steel cutting plate, representing the patch-

ing or make-ready for cutting. It is a good idea always to have this "spot-up" sheet the full size of the platen, with four holes punched in it at the points where the steel plate is screwed to the face of the platen, because this will insure proper register when the job is put back on the machine for a repeat run.

Nick the Cutting Rules

Nicking of the cutting rules in the die often is necessary to hold the sheet together when it is being taken out of the press to the delivery. The amount of nicking depends on the number of individual pieces being cut from a single sheet, the type of stock being cut and the direction of the grain. Less nicking is required on a platen press than on a cylinder because the sheet is kept flat at all times. You should never nick the cutting rules more than necessary.

It is wise to watch out for the maximum cutting load you can put on any particular press. Many printers, who do die-cutting on platen presses, overload the machine by trying to do too much. Today the manufacturer has scientific methods for determining for you how many lineal inches of cutting rule can be put into a given die for a given job on a given press. Press loads are rated by tons and it is often surprising to discover how many tons pressure a certain job will create. If in doubt, send a sample die-cut job to the manufacturer, tell him the size and model press you are using, and ask how many up of this piece the press will safely take without being strained or overloaded. This type of service is offered freely and is very valuable.

How To Do Embossing

Now let us consider briefly the subject of embossing. We have cold embossing and hot embossing, but the method for preparing an embossing counter or make-ready is the same for both. Various embossing experts, including a few "old-timers," have their own particular way of going at it and they use, in some cases, cardboard or plastic sheets to start the embossing make-ready. However, because embossing compound is most generally used, let us describe

(Continued on Page 161)

Discovery of Die-Cutting Outlined by Author

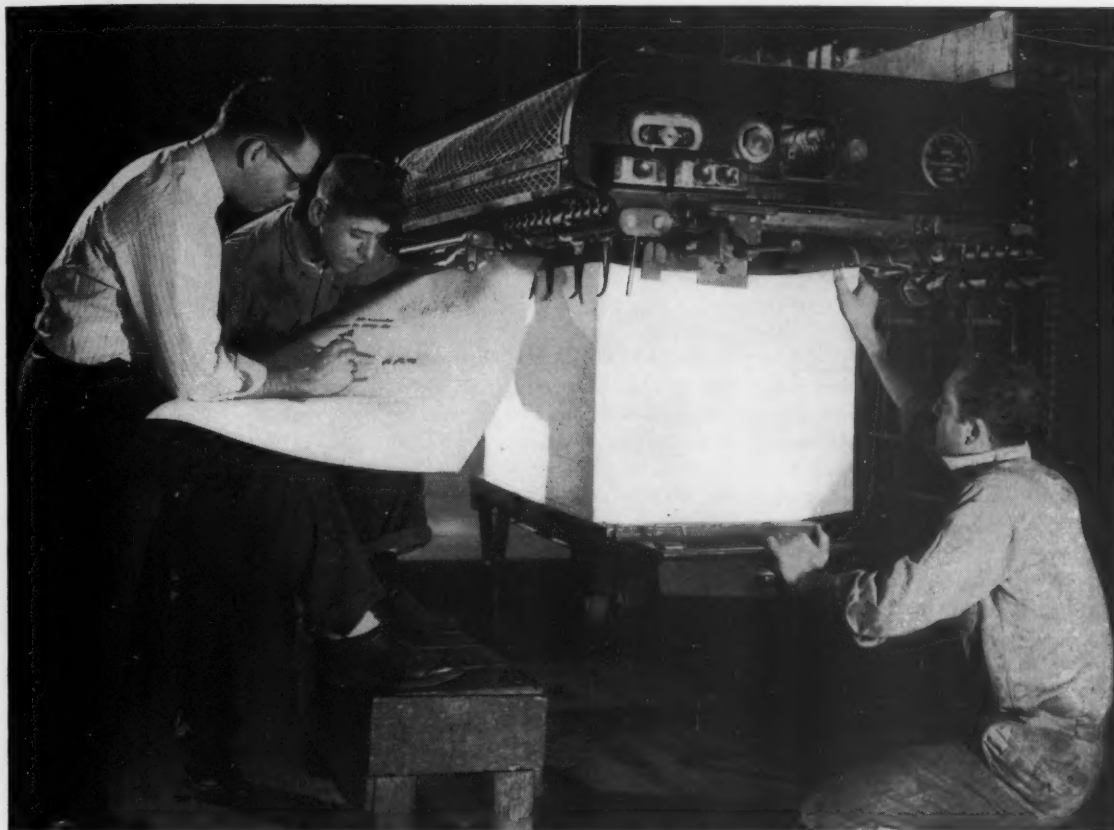
I IMAGINE most printers think of die-cutting as connected with the folding paper box industry because, to the best of our knowledge, that is where it started. The Robert Gair Co. is one of the largest and oldest firms in the United States manufacturing millions of folding paper boxes each year, with several plants manufacturing corrugated containers of all types. It is claimed that Robert Gair, founder of the company, invented a method for cutting and creasing folding cartons in 1878. I believe this method came about through an accident.

Apparently one of the old original Galley Universal Printing Presses was set up for a hand-fed printing job in the original Gair plant and a scoring rule was incorporated in the printing form. Someone set the impression too high and the scoring rule cut through the sheet. This gave Mr. Gair his idea for cutting and creasing and getting away from the old type of two-piece set-up boxes. The original 14 x 22" Galley Universal is on exhibit today at the Franklin Institute in Philadelphia.

Later on, in 1881, Mr. John Thomson, inventor of the "Colt's Armory" Printing Press, was persuaded by Mr. Gair to build the first real platen cutter and creaser in size 20 x 30". This press, designed only for cutting and creasing, was shipped to the Robert Gair Co. on January 6, 1887. It operated for many years, was finally retired, painted gold, and put on exhibit in the lobby of the Gair offices in Brooklyn. . . .

—Excerpt from Mr. Parsons' talk on "Die Cutting and Embossing," printed in part in the adjoining columns.

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Lewis L. Fink,
new MASA president



Offset Plays Big Part In Direct-Mail Boom

THE nation's advertisers spent \$1.5 billion on direct mail last year, according to figures presented at the 35th annual convention of the Mail Advertising Service Association in Chicago late in August. This sum was second only to the dollar volume spent on newspaper advertising, the Association's president, D. W. Hacker, Detroit, declared in his address opening the four-day meeting. But, large as this figure is, he asserted, it is on the way to becoming even greater.

In the automotive field alone, Mr. Hacker related, General Motors, Ford and Chrysler have this year been sending out more than 50 million direct mail pieces a month, a total representing a 20 percent increase in automotive direct mail advertising over 1955.

General Motors, Mr. Hacker said, has been charging its agencies for this direct mail material produced for their use but, under a new policy initiated this year, the cost will hereafter be assumed by GM itself. This step, he forecast should cause a tremendous spurt in direct mail used by this company's distributors.

Printers Attend

For the 600 letter shop owners and printers registered at the convention, a program was arranged which centered on finding ways to further improve the production, quality and effectiveness of direct mail advertising. Featured were panel discussions dealing with procedures, costs, selling, planning and counseling.

Among formal addresses was one

by David L. Harrington, chairman of the board, Reuben H. Donnelley Corp., Chicago, in which he proposed an educational foundation to promote interests of the direct mail advertising industry on a nationwide basis.

"A positive approach is needed in educating consumers to the important part direct mail advertising plays," Mr. Harrington declared. The mail advertising industry, he charged, has long been subjected to unfair attacks by competing media and to correct many of the industry's public relations ills an educational foundation, supported by all eventual beneficiaries is a vital need.

"There has long been a vacuum in education, research, vital industry statistics and effectiveness of the direct mail advertising medium," said Mr. Harrington. "The American people will never be aware of how much or what this industry contributes to their welfare until this vacuum is filled."

Acting later on this proposal, the MASA board of directors approved creation of a committee to develop a general public relations program to acquaint advertisers more thoroughly with the merits of the direct mail medium.

New president of the 1,000-member Mail Advertising Service Association, elected at the meeting, is Lewis L. Fink, head of Lewis Advertising Co., Baltimore, Md.

Printing Equipment Displayed

Among the more than 50 exhibitors of equipment and supplies at the Drake Hotel convention, a new

offset duplicator with a removable inking unit attracted outstanding attention. Known as the "Whitin Masterlith" duplicator, the machine is manufactured by Whitin Business Equipment Corp., Whitinsville, Mass., an affiliate of Whiting Machine Works, for 125 years a maker of textile mill machinery.

In this first public showing of the new device, the ease with which the removable inking unit makes quick color changes possible was demonstrated, along with 25 other features. Other companies exhibiting offset duplicators included Davidson Corp., A. B. Dick Co., Ditto, Inc., and Addressograph-Multigraph Corp.

Rainbow Ink Co., Chicago, introduced its new "unit formula system" for controlled color mixing and matching. Using 10 basic colors, 65 different shades can be produced and, either tomorrow or 10 years later, they can be accurately matched, Milton G. Bloom, company secretary-treasurer, stated. Both letterpress and offset inks are made, he said, and are available in one pound cartridges for the Unit formula system, or in containers up to 50-gallon drums.

Among exhibitors of photocomposing devices for setting typeless heads and display lines were Filmo-type Corp. Skokie, Ill., and the Halber Corp., Chicago. Progressive Lithoplate & Supply Co., Chicago, presented its lines of supplies and services for the office duplicator trade. Goes Lithographing Co., Chicago, displayed its extensive line of holiday letterheads, and border blanks for certificates of various types.★



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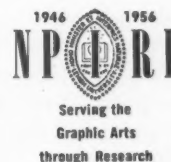
it's a fast-setting ink that won't gray out when dry either.

EXCELLOLITH INK is firm-bodied, yet soft enough to pour from the can. Use it, without further doctoring—just as it comes from our plant—it's ready for the fountain or for easy mixing when you want to make a match-color in the shop. EXCELLOLITH is available in a full range of colors and a *real black* black. Order a trial 5-lb. can this week.



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Technical

SECTION

New Extender Clays for Litho Inks

By Carolyn E. Moore

National Printing Ink Research Institute

COOPERATION among scientists has become increasingly prevalent since the turn of the twentieth century. All over the world organizations have sprung up to share and disseminate knowledge for scientific and consequent industrial progress. Separate industries have banded together and pooled resources to sponsor teams of research workers whose main goals lie in uncovering the basic factors which control the manufacture, use, and performance of their particular products.

Cooperative research of this kind, while now fairly common in Europe and other parts of the world, has grown relatively slowly in the United States, where the economic structure is based primarily on competition. However, many of our own industries are today recognizing the potential and savings of cooperative research. Notable among these is the printing ink industry. Within the framework of traditional competition, this industry found an area of alliance in basic research and in 1946 founded the National Printing Ink Research Institute.

This non-profit organization is dedicated to the betterment of the graphic arts industry in general and the printing ink industry in particular.

The NPIRI as it is called, is located

on the campus of Lehigh University at Bethlehem, Pa. Eighty-seven printing ink manufacturers support and sponsor research of NPIRI through the National Association of Printing Ink Makers.

Every member recognizes the need for an organization to study practical and fundamental problems of industry-wide significance, to discover better products and procedures for the industry, to help develop better printing inks, and to train technical personnel. An organization such as this also is needed to eliminate duplication of basic research effort and to help smaller member companies which have neither the equipment nor the means for conducting research. In addition, unencumbered by the press of day to day production problems, NPIRI provides a place for work in areas otherwise little-explored but of vital importance to the industry.

Staff of 25

The staff at the Printing Ink Institute consists of 25 trained persons who conduct research in printing ink and related graphic arts projects. Many of these employes have graduate degrees in chemistry, some are students in the University's Graduate School, and a number are employed as full-time laboratory technicians. Dr. A. C. Zettlemoyer, who has been with NPIRI since its inception, is director of research. A board of directors determines policy and ad-

ministers financial matters, while research is guided by a research committee working closely with the Institute staff. Both these groups are made up of men selected from the industry at large.

In the 10 years since the founding of the Institute, the research program has evolved into a many-sided approach to the elucidation of printing ink technology. Research is carried out in each of the following categories: rheology (the science of flow), dispersion (the making of printing inks), printability, test methods and instrumentation. The coordination of research efforts in these main areas is one of NPIRI's major contributions to progress in the graphic arts.

Frequently other industrial groups, attracted by the program at Lehigh, offer cooperation and financial assistance to NPIRI for work on problems of mutual importance and interest. One such co-sponsored activity is the project initiated by the Minerals and Chemicals Corporation of America for the study of extended clays used in the manufacture of printing inks.

A description of this work and its unusual developments should be of interest to the lithographer who will benefit ultimately from the findings.

Extenders are solids which possess neither important coloring, nor hiding properties yet find their way into

printing inks. Chiefly, they are used as a means for obtaining consistency or body as well as for giving good working qualities. Often these solids are responsible for particularly desirable ink characteristics as well, such as improved dot formation, reduced mottle, and good "lay" on paper. The use of kaolin clays as extenders or fillers in ink formulation is by no means a new practice.

For many years the ink maker has employed these materials largely because of their availability at low cost and in controlled particle size. Approximately two million short tons of kaolin clay are produced annually in the United States, and of this total about one percent finds its way into printing ink, a small but not insignificant volume. A typical fine clay costs about \$50 per ton, and this figure, compared with the cost of other commonly used extenders, could constitute a substantial savings.

Clays in Printing Ink

Strangely enough, only recently have suppliers and ink makers begun the search for ways to widen the applicability of clays in the printing ink field. Extender clays are by nature hydrophilic or "water-loving." While these hydrophilic properties are generally desirable for certain applications, there are systems which require the use of hydrophobic materials which do not "like" water, and in such systems hydrophilic solids are actually harmful.

For example, when a water loving pigment is used with an oil based vehicle to formulate an ink, the resulting product sometimes exhibits inferior performance because the pigment particles, with their surface coatings of water, are not wet by the vehicle and indeed will separate from it whenever possible. Naturally, pre-mixing and dispersing will be more of a problem, too. Furthermore, these hydrophilic solids can take on much more than just minute amounts of water on their surfaces, the amount of water on an extender surface being a direct function of the temperature and the relative humidity. This ability to take up variable quantities of water can lead to non-reproducible and in-



William H. Candler chemistry laboratory, at Lehigh University, Bethlehem, Pa., location of the 10-year-old National Printing Ink Research Institute.

consistent pigment performance from batch to batch. As a matter of fact, the properties of dispersions of these solids often are dependent on the amount of water on the surface before the ink is made.

The water wettability of the kaolin clays prevents their use in lithographic inks where solids less sensitive to water are needed. If pigments too readily wet by water are used in litho inks, the inks will bleed or tend to give lithographic breakdown. The problem, then, was how to make kaolin clays more suitable for inks.

Altering Surface Characteristics

Several years ago the idea of altering the surface characteristics of extender clays to render them hydrophobic was conceived by the Minerals and Chemicals Corporation of America, and a project was set up at NPIRI to study methods for treating clays to make them hydrophobic and to develop means for determining the efficiency of the treated clays in practical ink systems. The basic premise underlying the program at Lehigh was the belief that a new and useful, yet inexpensive, extender would develop from the studies, and that such an extender would impart interesting and unusual properties to various ink

systems. To determine the validity of this idea, a broad program was set in motion to prepare hydrophobic clays, to characterize these treated clays by measuring their surface properties, to measure gross properties of the clays themselves, and to study the performance of the hydrophobic clays first in simple dispersions and finally in practical ink systems.

The actual method of preparing hydrophobic kaolin clays cannot be revealed here. However, the nature of the surface films may be described. These films, once produced, are chemically stable and permanent and are neither displaced from nor dissolved off the surface upon dispersion in the various vehicles used. Several different coating techniques were used to produce varying degrees of hydrophobicity of the clays.

Characterization of the many samples produced by the various coating techniques and the selection of those samples to be included in the study were the next steps to be undertaken. An arbitrary scale based on the amount of water adsorbed per unit area was set up to rate the samples as to their hydrophobic or hydrophilic extent. Those clays which adsorbed or took on one layer of

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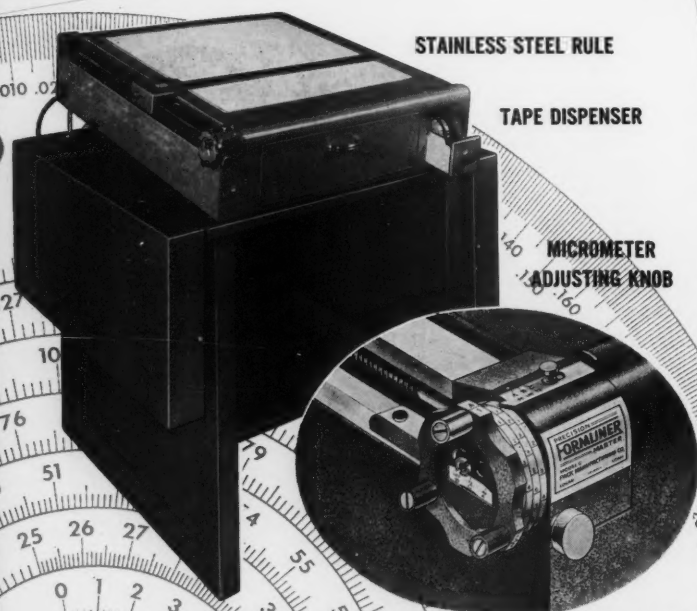
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water on their surfaces under carefully controlled exposure to water vapor were considered hydrophilic. Samples under the same conditions which would adsorb no water on exposure were classified as hydrophobic. The amount of water adsorbed was taken as a measure of the hydrophobicity between these extremes.

This characterization proved satisfactory when compared with other measurements performed by the surface chemistry group at Lehigh, which has had considerable experience in studying and analyzing the surface properties of solids. From these combined measurements, sufficient knowledge was gained to make an intelligent selection of the samples to be studied. Further surface chemistry work indicated that the selected group of refined and treated clays had surface coatings ranging from 0 to 60 percent of the total surface area, 60 percent being the upper limit obtained under the conditions used in the treatment of the clays.

Next it was important to learn something about two of the physical properties which partly govern the choice of pigments for printing inks: drier adsorption and oil absorption. All of the selected samples had acceptable values for drier adsorption and oil absorption compared with those of other solids normally considered suitable for ink components. Oil absorption was found to correlate well with both surface area and surface hydrophobicity. This discovery was indeed an important outgrowth of the work, because with this system the measurement of oil absorption was put in definite relation with a surface property for the first time.

Simple Dispersed Systems

After establishing that the series of treated and untreated kaolin clays was suitable for practical ink use as indicated by the gross properties of the clays themselves, simple dispersed systems were prepared and studied to see what performance properties were induced by the surface treatment. These simple systems were investigated first because of the decreased possibility of complications resulting

from interactions of the many components encountered in the more complex practical litho ink systems.

It is well known that flocculation or the clustering together of pigment particles is one of the factors responsible for certain physical properties of dispersions such as flow, body and thixotropy.* Studies in other areas at Lehigh had shown that flocculation is influenced both by the degree of hydrophobicity of the solid and the polarity of the vehicle.** Water increases the flocculation in a system to a degree dependent on the nature of the solid and the vehicle. The greatest effect by water is evidenced with a hydrophilic solid in a non-polar vehicle, whereas very little effect is evidenced with a hydrophobic solid in either a polar or a



non-polar vehicle. Non-polar vehicles, then, offered the best medium for comparing the various treated clays.

A series of experiments was planned to determine the effect of varying degrees of hydrophobicity on sedimentation (which is related to agglomeration), viscosity, flow, emulsification and ease of wetting and dispersion. The measurement of sedimentation rates in toluene showed that the more hydrophobic clay samples settled less quickly and to a lesser degree than the hydrophilic samples and suggested that either the hydrophobic materials were less agglomerated initially or were better wet by the non-polar toluene.

*Thixotropy is the tendency exhibited by some inks to set-up or stiffen on standing but to become quite fluid again when stirred or agitated.

**Non-polar vehicles are similar to kerosene in structure in that they consist primarily of carbon and hydrogen. Polar vehicles, on the other hand, more closely resemble alcohol in which a new atom for example, oxygen, assumes an important part in the chemical structure.

As far as viscosity and flow were concerned, hydrophilic clays in non-polar polybutene produced stiff, non-flowing pastes, whereas hydrophobic clays in polybutene produced systems of less viscosity and with better flow properties. With regard to emulsification, the dispersions containing hydrophobic clays were least affected upon agitation in water. It was also observed that the hydrophobic samples were more easily wet and dispersed and had lower fineness of grind readings than the hydrophilic samples in both polar and non-polar vehicles.

Minimum Hydrophobicity

From these results it was concluded that a minimum amount of hydrophobicity is necessary for superior performance characteristics, and that the chemical nature of the coating film influences the behavior of the solid.

The coated and uncoated clays also were used in more complex, practical ink systems. Here it was established that for long inks with good flow properties, hydrophobic clays in both polar and non-polar vehicles could be used. Up to this time, the hydrophilicity of most extender pigments restricted their use to systems having polar vehicles unless inks of short, heavy consistency were sought. This use of non-polar vehicles with hydrophobic solids might be a significant formulation advance because such vehicles are more uniform in composition and therefore result in more reproducible dispersions. In many instances non-polar vehicles are also much cheaper. While such vehicles are not usually used in lithographic inks, their use in gravure, heat set, and silk screen inks may prove advantageous.

Tests with Litho Inks

When heavy ink systems based on polar vehicles like litho inks were studied, it was found that the hydrophobic clays again wet more easily, dispersed more quickly, and resisted emulsification and breakdown by water. A number of lithographic inks made up with hydrophobic extender clays were used on a laboratory litho-

graphic press to study actual press performance. These inks compared with others containing more expensive extender pigments performed remarkably well. A very interesting relationship between tinting and hydrophobicity was observed, the occurrence of tinting gradually decreasing with increased hydrophobicity of the extender pigment.

60% Coated

It must be remembered, however, that only 60 percent of the surface of the clay was coated, and that this coverage does not represent or imply complete hydrophobicity. As a matter of fact, complete hydrophobicity of the materials used in litho inks would, no doubt, be unsatisfactory because a certain amount of water tolerance by the ink is required by the lithographic process.

Of what significance are these unique developments to the lithographers? And what can the new,

hydrophobic extender clays do for him?

First of all, with hydrophobic clays, the ink is more uniform in composition and so its performance is more predictable.

Secondly, inks formulated with coated clays change less in consistency and performance due to changes in humidity or to the presence of water.

Thirdly, inks containing hydrophobic clays show marked resistance to piling, emulsification and water breakdown. Every one of these improvements can constitute a saving in time and money to the printer, resulting from decreased difficulties encountered during press runs.

The principles of surface treatment of kaolin clays and the resultant performance advantages have uncovered a lucrative and relatively untapped field in lithographic, gravure, flexographic, silk screen, and letterpress inks, and to be sure many

applications may be yet to come. The studies described here are only the beginning of this work. The research program continues at NPIRI with the promise of other outstanding developments in the future. Much work of this kind is needed not just for extenders or fillers but also for other pigments and vehicles to develop an understanding of the interactions between these solids and liquids, the interactions which are so important in the manufacture, use and performance of printing inks.

"The very fact that it is impossible for us to get to the bottom of nature's secrets provides a constant stimulus to try again and again to search for new insights and discoveries." (Goethe, 1831).

The author is indebted to Dr. John J. Chessick, research assistant professor at Lehigh University and director of the program on extender clays, for his assistance in preparing this article and to the Minerals and Chemicals Corporation of America, co-sponsors of the program on clays.★

Handling Paper In Your Plant

By Dr. Robert F. Reed*

Lithographic Technical Foundation

FROM the standpoint of production, the printability of paper includes (1) its ability to be fed to the press and delivered in a flat condition; (2) its ability to hold register; (3) adequate pick resistance; (4) freedom from lint and dust; (5) ability to accept an ink impression; (6) freedom from chemicals that damage the plate, cause ink to emulsify, or affect drying of the ink.

Print quality can be lowered by some deficiencies in printability, such as misregister, surface picking, damage to plates, or ink emulsification. But obviously, you can't expect the same print quality from papers of different brightness, opacity or smoothness, no matter how well they run on the press.

*From a talk given at the 37th annual convention of the International Association of Printing House Craftsmen, Los Angeles, Aug. 15.

For good offset press operation, sheet paper should be grain long, perfectly flat, neither too dry nor too moist, and be trimmed straight and square. It should have a higher pick strength than paper for letterpress, and a low curling tendency. It should be free from dust and lint, and have good ink-drying properties. Uncoated papers on skids should be felt side up, preferably.

Roll papers for web offset have the same requirements as sheet papers. In addition the rolls should be tightly wound and round, and should show no soft spots, flats or corrugations.

The paper mill is responsible for the condition of paper when packaged at the mill. If it has the right moisture content and is wrapped properly, it will be practically hermetically sealed, and will not change except in temperature during transit to the litho shop. But after a package is unwrapped, the paper is susceptible to the effects of pressroom temperature and

humidity. Here the lithographer is responsible.

The precautions to be taken to protect paper in the litho shop are:

1. Allow time for the paper to adjust to the pressroom temperature.
2. Test the paper with the sword hydrometer to find out if it is too dry or too moist.
3. Condition sheet paper that is too dry or too moist before attempting to run process color work.

Whether or not a given paper that is out of moisture balance needs to be conditioned depends on the size of the sheet, the register requirements, and whether the printing on either side requires one or more trips through the press. Since most shops are still not air conditioned, the paper should be protected from atmospheric changes while standing between printings by means of moisture-proof covers.★

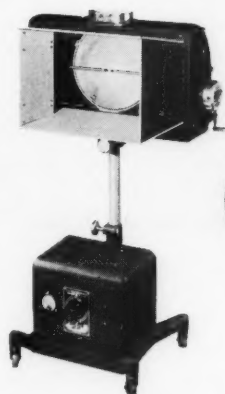
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THROUGH THE Glass

GREEN DUCK CO., Chicago metal decorating firm, has been observing its 50th anniversary by operating at "breakneck speed" for the past two months, E. W. Jordan, assistant sales manager, reports. Starting in late spring, Green Duck began turning out buttons, badges and advertising novelties for the hosts of aspirants to political office nationwide. Following the two national political conventions the business really began in earnest, Mr. Jordan said, and since Sept. 1, the company's 20 offset presses and more than 100 employees have been on a two-shift schedule to keep abreast of demands from both political parties.

Anticipating the rush, Green Duck's purchasing director early laid in large stocks of all needed raw materials, so there has been no interruption of production schedules because of shortages. Mr. Jordan's only complaint was that when the politicians decided to shorten their drive for votes to two months instead of the customary three, Green Duck had to step up its production pace by 50 per cent. He made one other interesting comment. "The wording on the buttons differs," he remarked, "but no matter whether they're for Ike or Adlai, they all have one thing in common. Everybody insists that the colors used on his order must be red, white and blue."

ML

Orville Hodge, the Illinois state auditor, whose speculations have made national headlines lately, used the names of two Chicago litho firms, without their knowledge or consent, to obtain \$50,220 of the \$1.5 million which he is charged with obtaining fraudulently from the state treasury.

This was revealed officially when federal grand jury indictments in the case were made public in Chicago. Similar indictments were also voted by a state grand jury.

Among the multitudes of forged checks involved in the federal indictments two for \$13,500 and \$10,825 were made payable to Steelgraph, Inc. and three, for \$11,750, \$5,600 and \$8,495, bore the name of Hillison & Etten. Executives of both litho firms have denied ever receiving the money and both have said it was not due them for any business done with the state.

ML

The Chicago Tribune's "Flowers While They Live" column, a regular Sunday feature, told recently the story of a Chicago printer-lithographer, Harry F. Nierman, who, for some 50 years, has had a big part in Chicago's annual picnic, for orphans, crippled children and elderly people. As a boy of 10, Mr. Nierman at-

tended his first picnic while a resident of a Chicago orphanage. After getting his start in business, he went around to contribute his help to the affair and was assigned to the job of picking up the kids, transporting them to the Lincoln Park picnic grounds, and getting them back safely to the various institutions where they lived. Since then Mr. Nierman has never missed an outing. Two years ago he was named president of the Orphans Automobile Association and on this year's big day, Aug. 22, he was on the job at 6 a.m. supervising preparations for everything, from candy to clowns, provided for some 5,000 children. As a child at Angel Guardian Orphanage, Mr. Nierman learned the printing trade. Today, at 62, he heads the H. F. Nierman Printing Co., a family business at 3321 Fullerton ave., with his three sons and three daughters as his partners.

ML

The Second Quarter issue of *Better Impressions*, colorful paper demonstrator magazine published by The Mead Corporation four times a year, recently was mailed to thousands of printers, advertisers, artists and paper specifiers throughout the nation. Printed on various grades of Mead Papers to demonstrate their printing characteristics, the latest issue contains an array of attractive artwork and interesting articles sure of interest to members of the graphic arts. For example, there is an article titled *The Art of Buying Paper* that lists the usual pitfalls encountered by the unwary when buying paper stock . . . and shows the methods by which they can be avoided.



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Division

Metal Decorating

A Monte Carlo cocktail party, featuring roulette and other games (with stage money) will be one of the high points of the National Metal Decorators Association convention. The party is being sponsored by the Metal Decorators Suppliers Group formed last year. Vincent Stafford, chairman of the group, said the party will be held Monday, Oct. 14th, before dinner. At the conclusion of the games, members will be able to participate in an auction for prizes, using the stage money to make their bids.

The party is the first cooperative sponsored affair of its kind to be held at the NMDA convention. Most of the metal decorator suppliers have contributed to the program.

The suppliers committee was formed at last year's convention. Other members are Gordon Bartels of the GB Company, Rockford, Ill., and Robert Gibson, of Crescent Ink and Color Co., Philadelphia.

BIG attendance for the 22nd annual meeting of the National Metal Decorators Association has been predicted for the Atlantic City convention, October 15-17. It will be held in the Chalfonte-Haddon Hall Hotel in Atlantic City.

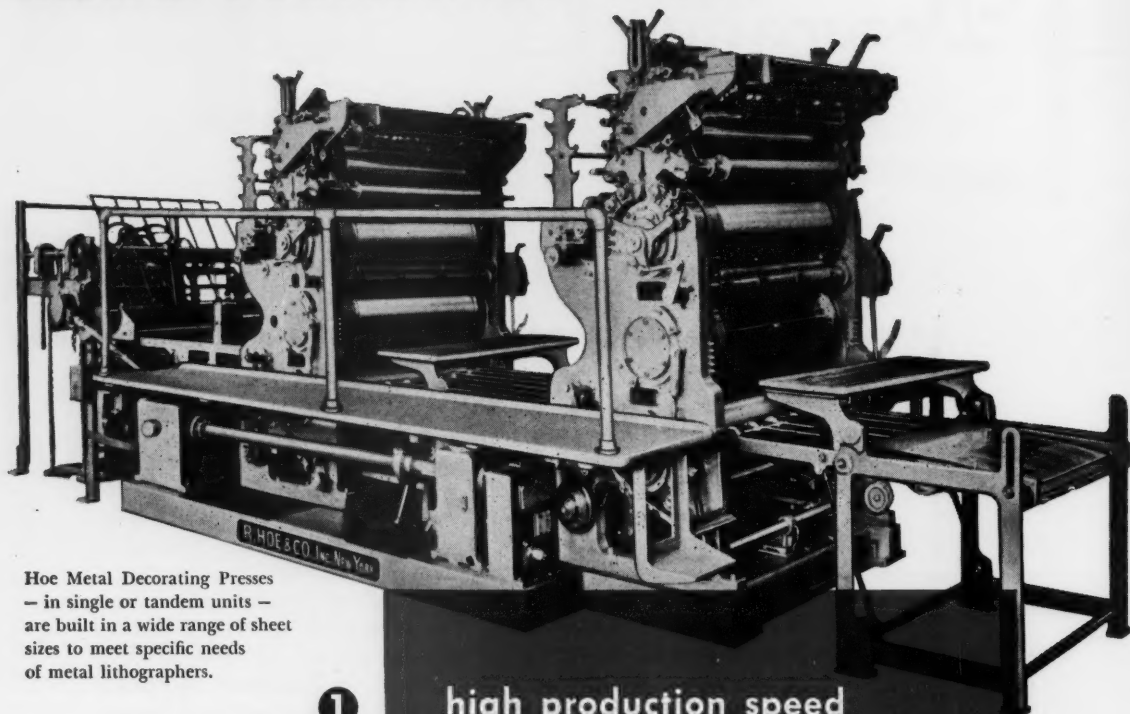
Following the pattern of last year's convention, there will be a full day trip to graphic arts plants. The trip, planned for Tuesday, the second day of the convention, will be to Crescent Ink and Color Co. and Triangle Publications, both in Philadelphia. Buses will leave the hotel at 8:30 a.m. and will bring the conventioners back to Atlantic City in the evening after the tour of the ink manufacturing facilities and the extensive rotogravure section.

Talks scheduled for Monday and Wednesday include a discussion of oven equipment, dampeners, presses, coating machines, quality control, supervision, and activities of the Lithographic Technical Foundation.

The NMDA will conclude its program with a cocktail party and banquet on Wednesday evening, starting at 6:30.

On the following page is the program for the convention:

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NMDA Program

Monday, Oct. 15

10:00 a.m.—BUSINESS MEETING
For members only.

12:30 p.m.—Talk by *Joseph R. Esposito*.

"MODERNIZING EXISTING OVEN
EQUIPMENT FOR HIGH-SPEED
OPERATION," *James D. Russell*,
Young Brothers Co.

"DAMPENER EXPERIENCE," *Nicholas G. Mandish*, Caspers Tin
Plate Co.

COCKTAIL PARTY in the evening.

Tuesday, Oct. 16

8:30 a.m.—TRIP TO CRESCENT INK &
COLOR CO. AND TRIANGLE PUB-
LICATIONS.

Wednesday, Oct. 17

10:00 a.m.—

"MY EXPERIENCE WITH PRESSES,"
Lloyd Humphreys, Continental
Can Company.

"COATING MACHINES," *Walter A. Spies, Jr.*, Wagner Litho Ma-
chinery.

"CURRENT METHODS OF QUALITY
CONTROL IN METAL DECORATING
INKS," *Richard H. Scott*, Sinclair
& Valentine Company.

12:30 p.m.—LUNCHEON for members
and suppliers.

2:00 p.m.—

"SUPERVISION IN THE METAL DEC-
ORATING INDUSTRY," *George A. Mattson*, Chicago Lithographers
Association.

"WHAT'S GOING ON AT L.T.F.,"
Michael H. Bruno, LTF.

BUSINESS MEETING for members
only.★

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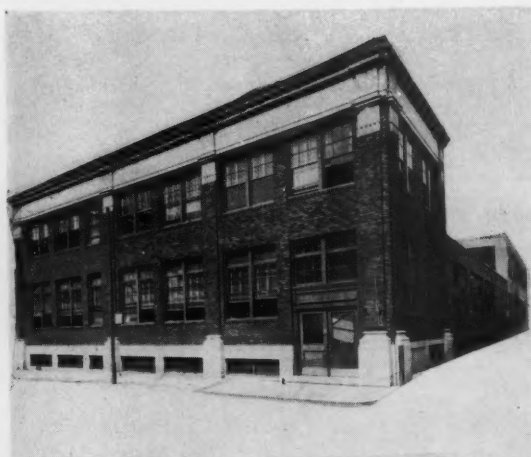
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NMDA To Tour Crescent, Triangle Plants

METAL Decorators will get a chance to see, first hand, how lithographic and other inks are made, and the operation of one of the largest rotogravure plants in the world, Oct. 16, the second day of the NMDA convention in Atlantic City.

Crescent Ink & Color Co., the ink plant to be visited, will be host for the day's tour, and will entertain the entire group at lunch. Buses will leave the Chalfonte-Haddon Hall at 8:30 a.m., going first to the Crescent plant, in Philadelphia, where the manufacture of lithographic, letterpress, flexographic and rotogravure inks will be viewed.

Next stop is Triangle Publications, Inc., about a mile away, which prints Sunday supplements for the Philadelphia *Inquirer*. The plant is capable of printing 425,000 16-page magazine or newspaper sections an hour. Photos on these pages show some of the operations at both plants.★



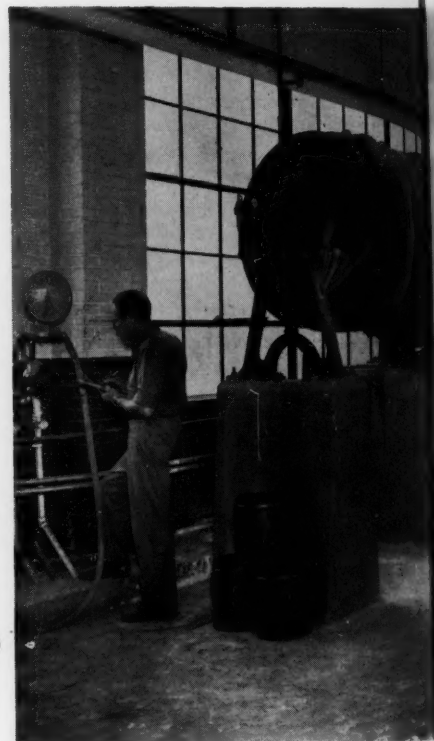
Plant of Crescent Ink & Color Co., in Philadelphia, 39-year old manufacturer of inks.



Fully equipped laboratory, where raw materials are tested and new inks developed.



Modern high speed grinding mills at Crescent. Ink is fed into mills by "tilter."



Ball mill department. Foreman checks flow of thinner to a mill. Mills have five-drum capacity.

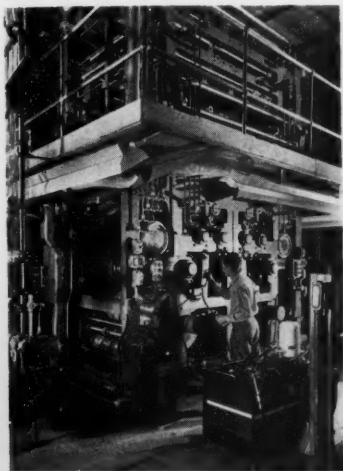
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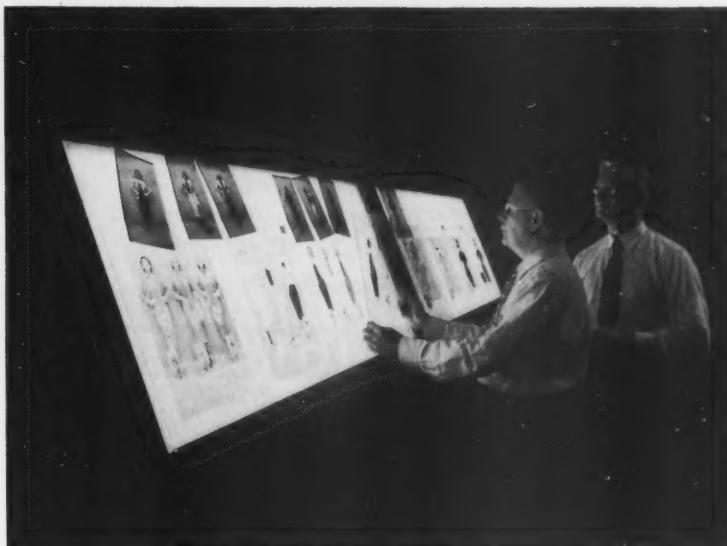
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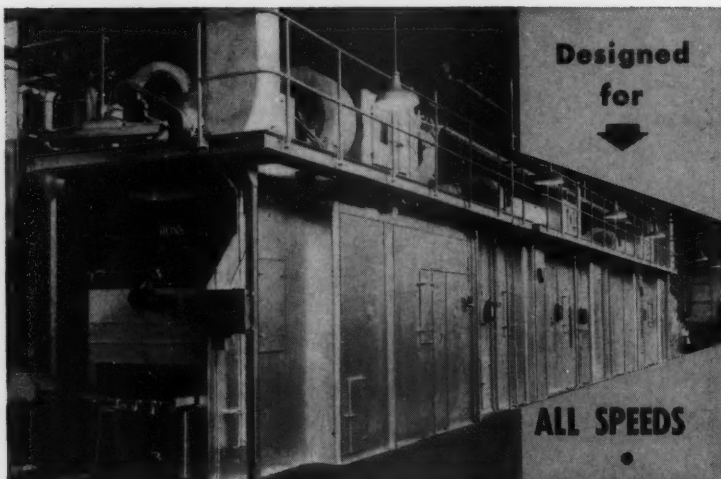


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TYPE SHEETS**

Inland Steel Names Greenbaum

Robert J. Greenbaum has been named president of Inland Steel Container Co., Chicago metal decorating firm and subsidiary of Inland Steel Co. Mr. Greenbaum joined the original container firm in 1939 before it was taken over by Inland Steel. He served one year as production manager and for several years has been vice president in charge of sales. Succeeding him in this position is J. Daniel Ray, previously general service manager of Inland Steel Products Co., Milwaukee, Wis.

Reprints Offered by Dexter

Included among the photographs illustrating the article "More From Mechanical Feeders," is one of a lithographic press for decorating tin plate or sheet metal.

The article is being offered in reprint form by Dexter Folder Co. Topics dealt with in the article include applications of mechanical sheet feeders for handling tin plate, sheet steel, aluminum sheets, cardboard, and asbestos sheets.

Caspers Plans Acquisition

Caspers Tin Plate Co., Chicago metal lithographing company, announced last month plans to acquire Olive Can Co. of Chicago. The Olive firm fabricates lithographed cans and other metal specialties.

New Brochure Issued

Information on the major operating features of the new Dexter 125-sheet-per-minute metal feeder is covered in a new six-page, two-color brochure offered by Dexter Folder Co. The new sheet feeder handles sheets ranging in size from 19" x 19" to 44" x 48", and from 20 gauge to 38 gauge in thickness. A dimensional floor plan also is included, showing layout requirements for installation of the feeder.

N. Y. & Penn Names Kearney

James M. Kearney, former salesman for Kennelly Paper Co., New York, has joined the staff of New York & Pennsylvania Co., pulp and paper manufacturers.

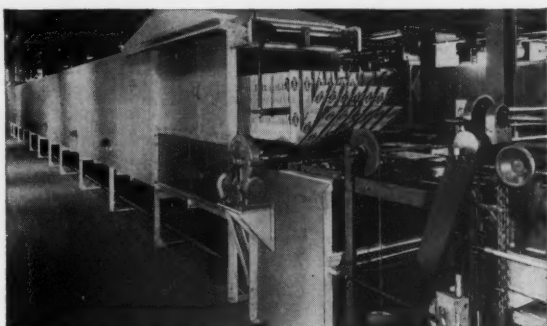
there's "something special" about every

YOUNG BROTHERS METAL DECORATING OVEN

it's engineered to
meet individual
production
requirements for
SPEED, QUALITY,
ECONOMY



Battery of large, high speed D. E. F. Metal Decorating Ovens



D. I. F. Metal Decorating Oven with zone control and recuperative cooling



High speed, combination D. E. F. and D. I. F. Metal Decorating Oven

A metal decorating oven is a highly mechanized production unit in a specialized field — and it will only perform at maximum efficiency in your plant if it has been engineered and built by men well versed in every phase of oven engineering.

In Young Brothers Metal Decorating Ovens you get the experienced engineering and precision operation which are vital in producing high speed, high quality metal decorating. Young Brothers "know-how", based on 60 years of building individually

designed ovens for all baking and drying processes, combined with a thorough knowledge of the Metal Decorating Industry is your assurance of better finished products at lower cost.

A wide variety of basic sizes and types of Young Brothers Metal Decorating Ovens are available to meet your specific requirements. Investigate what their advantages can mean to you — details are available without obligation. Write today!



YOUNG BROTHERS COMPANY

1841 COLUMBUS ROAD

CLEVELAND 13, OHIO



PHOTOGRAPHIC

Clinic

By **Herbert P. Paschel**
Graphic Arts Consultant

Q: Can you advise where to buy, or how to build a suitable light source for trans-illuminating color transparencies for separations, which can also be used for making the halftone positives?

B. P., LOS ANGELES

A: A carbon arc lamp, preferably of the stabilized type, would undoubtedly be the most universal light source for your purpose, because you want to use it for making both continuous-tone separations and halftone positives. A white flame arc has the desired spectral output for both applications and the light volume is high, thus permitting reasonably short exposures.

However, if exposure time is not a factor, you could make use of fluorescent tubes and cold cathode grids. These have proved to be entirely satisfactory in many applications involving separations from color films and can likewise be employed for halftone work although, for the latter use, the exposure might be somewhat longer than with arcs. When using gaseous discharge illuminators you can use white tubes for both purposes. Blue and green tubes are more efficient for purely black and white applications such as making halftone positives from the separation negatives but, because of the limited spectral output, are restricted to that use only.

Many of the camera manufacturers provide fluorescent or cold cathode grid illuminators as accessories to their cameras. You can obtain some help on constructing a light box using

Camera troubles? Why not drop a note to Mr. Paschel, c/o Modern Lithography, Box 31, Caldwell, N. J. He'll be glad to draw on his years of experience as a consultant to answer your question.

slim-line fluorescent tubes from the lamp department of General Electric. You can buy a cold cathode illuminator from Aristo Grid Lamp Products, Inc., 106-23 Metropolitan Avenue, Forest Hills, New York.

The Klimsch "Reprocolor" is a projection device which attaches to the lensboard of the Klimsch camera and is designed for making enlarged separation negatives from small color films (35mm. to 2 1/4" x 3 1/4"). Such a device could be adapted to other cameras as well.

Q: Can you suggest a holder for separation negatives and masks that will permit changing masks without disturbing alignment?

B. P., LOS ANGELES

A: For that purpose you will need some type of three-point frame or bar. These are available as optional equipment on most modern cameras for use either at the negative carrier, the positive holder, or both. The Vari-Mask Register Frame, designed and produced by this writer, is a three-point frame which can be used as a negative or positive holder or

for making contact separations and masks from color transparencies. Masks can be changed without disturbing the register of the negative. This frame permits many innovations in masking. It holds the register of negatives and masks made in it but it must be securely held in the respective holder in the camera. It cannot overcome distortions and movement inherent in the present camera facilities.

The above refers to negatives and masks on glass plates. If you are using film you will need a pin-register device. You can obtain information about these from the Graphic Arts Studio of Eastman Kodak Co., Rochester, New York.

Q: We are going to make a vacuum back for our camera out of 3/8" clear plastic. We understand that channels are generally grooved on the inside surface and a single hole is drilled through each to the inside "vacuum" box. We are wondering if rows of 1/16" holes would not be better than the channels?

E.S., KANSAS CITY, MO.

A: An accurate answer would require complete information as to the construction details. However, properly designed vacuum backs with channels are in most cases superior to those with holes. A satisfactory channel system is one where each rectangular channel form can be linked to the vacuum system independently. In this way the vacuum is (Continued on Page 161)

READERS:

Are you taking full advantage of your lithographic magazine?

THE staff of *Modern Lithography* has been trying, in several important ways, to make the pages of your magazine more valuable to you. Increased in-person coverage of litho club and trade association meetings has been one way. Interpretative articles on subjects of vital interest to you is another. That's the reason for our recent series on presensitized plates, metal decorating, elements of photography in the litho shop, color stripping, and visits to typical litho shops and for our expanded coverage of the litho news in all parts of the United States and foreign countries.

Our climbing circulation figures indicate your appreciation of our efforts. But are you taking *full* advantage of your lithographic magazine? In past months, many of you have availed yourselves of the services of our two regular columnists, *Theodore C. Makarius* (Press Clinic) and *Herbert P. Paschel* (Photographic Clinic). The purpose of this page is to remind you that if you have a troublesome problem regarding press or camera, these specialists are ready to help you solve it. If you are a subscriber to ML and have a question, why not jot it down on the coupon below and send it along to us? We'll be glad to help you, and the service is free.

MODERN LITHOGRAPHY

Box 31, Caldwell, N. J.

☐ Mr. Makarius
(Press)

☐ Mr. Paschel
(Photography)

My Question: _____

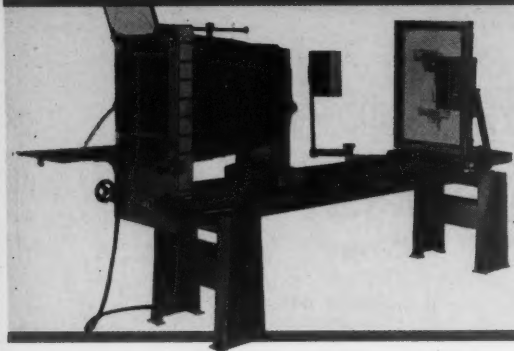
(Only your initials will be used)

Name

Company

Address

A CAMERA FOR EVERY PURPOSE



16 x 20" SPECIAL DARKROOM 18 x 22"

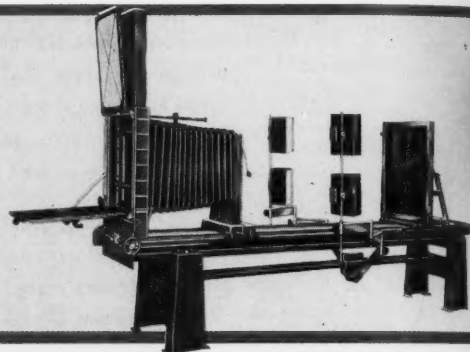
A fully equipped all metal precision-built camera for darkroom, gallery or built into a darkroom. Consolidated leads again, and now, in the lowest price cameras in the field. You can't beat this combination—"The best camera at the lowest price." The Consolidated 16x20" Special can help you start your camera department or increase your present camera production.

Sold as a package unit, complete with all accessories, at \$2,995.00. Complete in every respect to produce the finest black and white, line and halftone work. The camera that can fit every plant requirement. Designed and built for faster production with a size that will reproduce negatives for a full page engraving and the 17x22" offset press.

16 x 20" PROCESS DARKROOM 18 x 22"

The Consolidated 16x20" and the 18x22" Process Darkroom Camera is an all purpose precise built camera for both black and white and color, ideally suited for the small lithograph plant with presses up to 18x24", the photo engraver, for fast halftone and line work up to a full newspaper

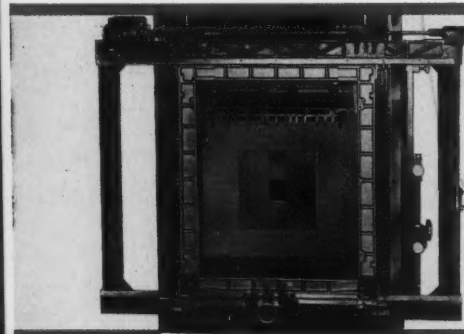
page. Built for speed, designed to fit in a small space area, produced with the greatest economy to do a big job in your plant. Thousands of these cameras are in use today, producing more and better work. Investigate this most versatile all metal small-low price Camera before you invest!



31" STEP & REPEAT CAMERA

The Consolidated STEP AND REPEAT Camera is outstanding for the accurate and fast production of multiple negatives in Color and Black and White in line or halftone by projection or contact, as well as all other camera reproductions in Black & White or Color process on the Consolidated Precision Color Camera. A new system of producing multiple negatives in absolute register, quicker and more accurately than any other camera

with a greater range of up to 28x34" negative size. There is no chance of error, no measuring to do on each step. One setting for each direction and then step and repeat semi-automatically. Added production will enable you to pay for this camera in a very short time. If you are now operating one of the 4000 24" or 31" Consolidated Precision Color Cameras, this accessory can be added with full credit for your present back.

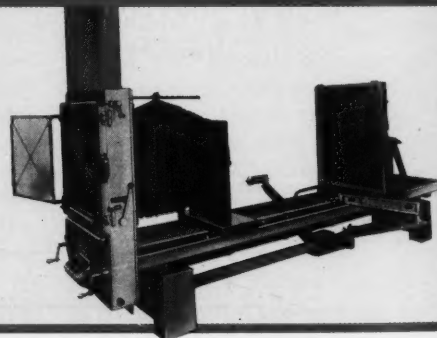


24" PROCESS DARKROOM

An ideal, all purpose camera, designed to fill the great need of a precision built, low priced production camera capable of producing a larger volume of finer quality black & white work and color process work. The Consolidated Process Darkroom Camera features an enclosed light-tight rear case, eliminating the necessity for light trapped darkrooms and enables the operator to go in or out of darkroom, develop or do any other

operations during the exposure. Leading Lithographers, Photo-engravers and Rotogravure plants have equipped their Camera Departments with Consolidated Process Darkroom Cameras. Installations of up to 10 Cameras have been made in a single plant. The Consolidated Process Darkroom Camera outfeatures all other Cameras in the field and, with these advantages, it's still one of the lowest priced cameras.

31"



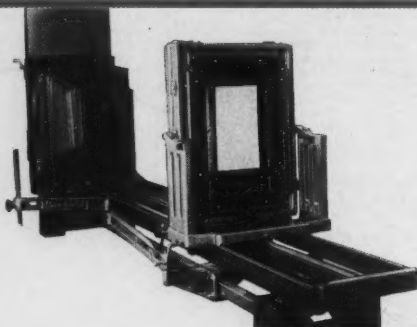
24" PROCESS PRECISION

31"

Designed with the same precision accuracy as our Precision Color Camera, the Consolidated Precision Revolving Type Copyboard with 22x28" Precision Positive Holder added to the Process camera makes the Process camera an ideal Color Camera that is called the "Combination Process-Precision Darkroom Camera." Designed to handle all copy and trans-

parencies with instant conversion from glass covered copyboard to precision positive holder.

Color accessories, such as three-point bars, re-register device, masking bars, straight line reversing system are available for all color reproduction methods. A dual-purpose, all metal fast black & white and fine color process precision camera.



... TO MEET EVERY BUDGET!

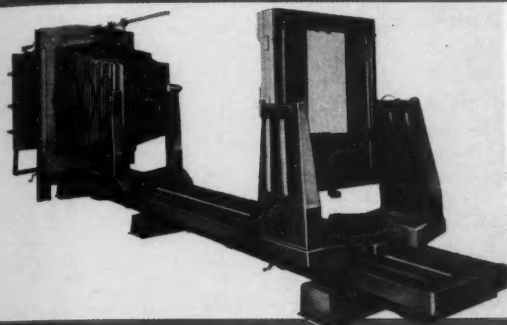
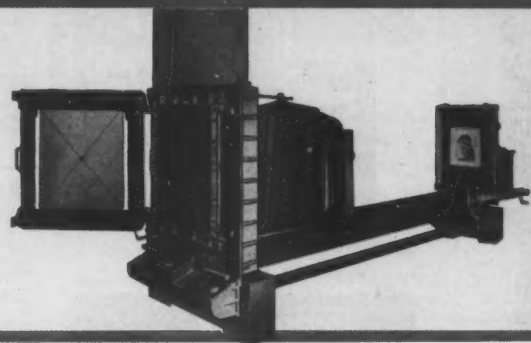
24"

PRECISION COLOR

31"

The Consolidated Precision Color Camera is the finest, newest, most versatile, complete Darkroom Camera today. Equipped with all the necessary accessories to reproduce Color and Black & White by all the known processes and to photograph every type of copy or transparency on any type of sensitized material.

The Consolidated Precision Color Camera has been labeled the "Camera Man's Camera," and that is exactly what it is. With over 4,000 Cameras now in use, this is proof positive that the industry has accepted this fine precision camera as the Mark of Distinction in fine camera equipment.



48"

SUPER PRECISION

64"

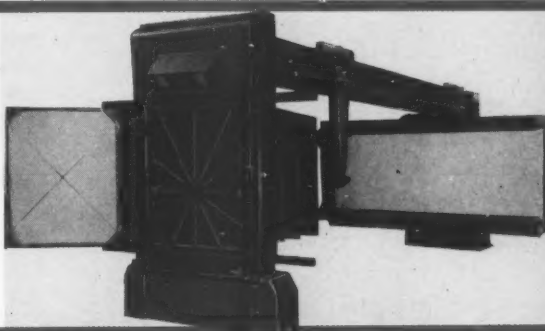
Designed to reproduce a billboard or a postage stamp efficiently and economically, it has the speed and versatility of the smaller Cameras, and the mammoth capacity of up to 30 square feet exposure area. The making of larger negatives is profitable and saves time. A Camera that can do everything in the reproduction

field, with no limitation as to size and precision, and that would attract a volume of larger work. Trade plants, poster, display and map lithographers having press equipment 35"x45" or larger, should investigate the many ways the Consolidated Super Precision Color Camera can earn more, save more and attract new business.

40" SUPER PRECISION OVERHEAD 48"

The Consolidated Overhead Super Precision Color Camera is supported by a large, heavy steel welded overhead tube structure, precision machined to the closest tolerances and mounted on three-point shock mount

suspension. Used by the U.S. Army for mapping and mosaic reproduction. By aircraft industry for templates. Ideally suited for poster display and other large lithograph reproductions.



25" ROLL FILM CAMERA

Consolidated's newest development in high-speed camera work, equipped for four rolls: 6", 9 1/2", 13" and 19". Designed to operate completely from darkroom or at copyboard.

As an optional accessory, Consolidated's Fully Automatic Roll Film Camera features the electronic auto-focusing system and size selector, complete with operating console and controls for complete operation of camera,

film and exposure by remote control. The Consolidated Automatic Roll Film Camera is so designed that changes from roll to roll are done automatically and size selection is pre-set and accurate. The ultimate and finest in fast camera production incorporated in the World's most outstanding Camera—The Consolidated Automatic Roll Film Camera. Production speed guaranteed: A negative a minute.

For complete information on the Consolidated Cameras refer to the charts at the end of this section.

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EQUIPMENT AND SUPPLY COMPANY

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Litho Club

NEWS

Twin City

C. L. Jewett Describes Plates

The September meeting of the Twin City Litho Club was highlighted by a discussion on "Presensitized Plates Today," led by C. L. Jewett, general manufacturing manager of the printing products division, Minnesota Mining & Mfg. Co.

Mr. Jewett's talk covered a general view of the use and acceptance of presensitized plates in the industry. He emphasized the importance of skill and processing techniques necessary for the best performance and the application of presensitized plates in short run color.

Everyone attending had a chance to "get into the act." At dinner each member and guest discovered a small square of metal at his place with instructions to leave it undisturbed until an announcement was made.

When Mr. Jewett was introduced

he instructed everyone to turn the metal square face up and apply two different chemicals provided in paper cups. By applying the first chemical and rubbing it on the face of the metal, a pre-exposed screened image appeared. Application of the second chemical further prepared the plate for the press.

Although Mr. Jewett's demonstration of the ease with which a presensitized plate can be made was in the nature of a "gimmick," it clearly demonstrated the principle used in presensitized plates producing plates capable of printing.

Two new members admitted to the club are Julian Anderson, John Roberts Printing Co., and Frank Berner of the Bruce Publishing Co. An invitation from the Consolidated and Nekoosa-Edwards paper mills of Wisconsin Rapids was extended to all club members to visit their installations in Wisconsin next summer.



Minnesota Mining & Manufacturing group joins the Twin City Litho Club.

Philadelphia

Lighting Importance Noted

"Better Lighting Means Better Printing" was the topic of guest speaker E. A. Linsday at the September meeting of the Philadelphia Litho Club, held at the Poor Richard Club. Mr. Linsday is manager of the industrial lighting section of General Electric Co., Cleveland.

Mr. Linsday's talk embodied lighting as related to lithography, and he placed emphasis on specialized lighting, the aspect of colored lighting for color printing, general illumination and the examination of color proofs.

Three new active members admitted to the club are Angelo M. Russo and Frank A. Leidich of Crown Can Co. and Carl J. Scholl, Edward Stern & Co.

The annual club outing was held Sept. 29 at the Valley Forge Country Club with Howard Harcke in charge.

Houston

Membership Campaign Set

A membership campaign is being launched this month by Houston Litho Club in an effort to enlist many of the new personnel associated with the growing lithographic industry in the Southwest.

In the past 12 months two negative and platemaking shops were established. In addition, 20 new sheet-fed presses were installed in area plants. Dorsey Biggs is chairman of the membership campaign.

Club members witnessed a demonstration of the ATF Mann two-color offset press at the September meeting held at the Houston Lithographing Co. The press was demonstrated by Earl Hinkle, manager of the Mann department of ATF, Elizabeth, N. J.

Some of the interesting features of the press pointed out by Mr. Hinkle, included the single impression cylinder and the cylinder paralleling device that enables the pressman to parallel the blanket cylinder while the press is running to equalize the impression over the sheet. He also called attention to the automatic

water control that maintains a constant level of fountain solution, resulting in uniform dampening.

The plate pre-clamping feature also was explained. It allows another plate to be mounted on an extra set of bars while the press continues operation on another. As soon as that job is finished, the plate, bars and all, are removed from the press and the newly mounted plate can be dropped into place immediately, and the press is ready to continue with the next job.

At a special meeting of the board of governors, Frank Pryor, chairman of the Christmas party committee, announced that Dec. 22 has been set for the annual party, jointly sponsored by the Litho and Craftsmen's Clubs.

The regular board meeting was held Sept. 10 with six members in attendance. William Campbell of Paul McCain Typographers was voted admittance to the club.

The October membership meeting was scheduled to be an open house at the Howard Flint Ink Co. At the November meeting, nomination of officers for the coming year will be made, and a film, "Photocomposition," provided by Intertype Corp., will be shown.

Chicago

Renew Educational Program

The Chicago Litho Club launched its fall educational program Sept. 27 by viewing the color scanner which had been "unveiled" to the Chicago lithographing trade by Printing Developments, Inc., at their Michigan Ave. studio just two weeks earlier. On hand to explain what this new tool, now available in the Chicago area, can mean in improved color reproduction were G. Robert Brunhouse, coordinator of the scanner division's nationwide sales and service program, and Thomas Redstone, Chicago area sales manager.

Plans for the October and November educational meetings were outlined in the brief business session and William O. Morgan, chairman of the club's convention committee, reported

on progress of preparations for next spring's NALC convention to be held in Chicago.

Washington

Preucil Heard by Club

Frank Preucil, chairman of the Lithographers Club of Chicago, presented a program on color reproduction at the Sept. 25 meeting of Washington Litho Club at the Continental Hotel. Mr. Preucil discussed masking for color correction, color separation, and halftone screening methods.

Mr. Preucil, a former vice president of TAGA, currently is supervising and expanding LTF's research on evaluations of color separation and halftone screening methods.

Shreveport

Film Shown, Hints Offered

A motion picture on paper making was featured at the August meeting of Shreveport Litho Club, held at Gaines & Co. The film demonstrated paper making from seedlings of trees through various processes to the finished product.

One of the helpful hints offered by the club pertains to running envelopes on an offset press. Stick a piece of craft tape on the bottom drum under the type and drop off on the bottom drum pressure. This will allow the envelop to get through without the air inside causing it to burst.

Baltimore

Small Presses Discussed

Gilbert W. Bassett, sales research manager, Michle Printing Press & Manufacturing Co., was guest speaker at the September meeting of Baltimore Litho Club, held at Munder's Lauraville House. Mr. Bassett's program was based on the theme of what can be done on small offset presses and how they fit into the picture in large and medium, as well as small plants.

The club conducted its annual crab feast Aug. 11 at the John Hasslinger Restaurant.

Tulsa

Small Presses Demonstrated

Four small offset presses were demonstrated at the September meeting of the Tulsa Litho Club. The presses, Davidson Dual, Whitin Masterlith, A. B. Dick, and the Multilith, were shown through the courtesy of Davidson Sales and Service, Addressograph-Multigraph, Bewal, Inc., and Charles T. Clark Co.

Attention of the members was called to the fact that charter membership now is closed, but that the club is anxious to add new members. The club now has 98 charter members.

Conn. Valley

Big Turnout For Outing

The Connecticut Valley Litho Club had a huge turnout for its annual outing this summer at Turner's Park East Longmeadow, Mass. More than 250



members and guests from New England, New Jersey and New York enjoyed the all-day outing and clam-bake. Thomas Dowd, Rapid Roller Co., was winner of the first door prize.

New York

Annual Outing Conducted

The club's annual outing was held Sept. 22 at Platideutsche Park. Athletic contests featured the event, and members and guests were treated to two meals.



PROVE IT YOURSELF

NEW and IMPROVED

LITTLE BENJY 1 Step Wash-up Solvent
CLEANS ROLLERS FASTER, SAFER, BETTER THAN ANY OTHER METHOD

Try this. A few drops of Little Benjy on a small area of a badly scaled and dirty roller. In just fifteen seconds, wipe away all pigments, glaze, and gum left deep in the roller by ordinary solvents. See how effective Little Benjy can be in removing the toughest scale deposits.

See the results obtained in repeated field tests: reflex blue to pastel yellow in fifteen minutes, under typical pressroom conditions!



We'll supply the dropper, sample can of Little Benjy, and brochure showing actual test results. Don't delay . . . write today.



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Litho Club Guide

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720 East Pratt St., Baltimore 2, Md.

BOSTON

Thomas J. Cain, Secy.
Hub Offset Co.
175 Purchase St., Boston 10

BUFFALO

Vic Reisch, Secy.
33 Eiseman Ave., Kenmore 17, N. Y.

CANTON, Ohio

Jack R. Reinart, Secy.
1012 Maryland Ave., S.W., Canton

CHICAGO

Fred L. Faulkner, Secy.
Chief Printing Co.

CINCINNATI

Peter Schannes, Secy.
Mail-Way Advertising Co.
229 East Sixth St.
Cincinnati 2, Ohio

CLEVELAND

Russell B. Waddell
5308 Blanche Ave., Cleveland, O.

CONNECTICUT VALLEY

Thomas Murice
521 So. Main St.
West Hartford, Conn.

DALLAS

Lee Phenix
1802 Akard St., Dallas, Tex.

DAYTON

Richard Clark, Secy.
740 Vine St., Piqua, O.

DETROIT

John Murphy, Secy.
13100 Santa Rosa, Detroit

HOUSTON

Chloe Lee Mallet
2104 Wichita, Houston 4, Tex.

LOS ANGELES

Ernest A. Szabo
1323½ W. 93rd St.,
Los Angeles 44, Cal.

MILWAUKEE

Allan N. Williams, Secy.
4463 N. Morris Blvd., Milwaukee 11,
Wis.

NEW YORK

Tom Cavallero
Schlegel Litho. Corp.
2nd Ave. & 22nd St., New York

ONTARIO

The Secretary, Ontario Litho Club
c/o The Canadian Lithographers
Ass'n., Inc.
4 Wellington St., E., Toronto, Ont.

PHILADELPHIA

Joseph Winterburg, Secy.
622 Race Street, Philadelphia 6
Meets 4th Monday

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Gazette Printing Co., Ltd.
1000 St. Antoine St., Montreal, Canada

ROCHESTER

Roy Bippes, Secy.
87 Pleasant Ave., Rochester 22, N. Y.

ST. LOUIS

Eugene J. Hanson, Jr., Secy.
4440 Bessie Ave., St. Louis 15, Mo.

TWIN CITY

Marvin Haenze, Secretary
1405 Chicago Ave.,
Minneapolis 4, Minn.

WASHINGTON

H. Thos. Driver, Secy.
PO Box 952, Benj. Franklin Sta.
Washington, D. C.

NAT'L ASS'N OF LITHO CLUBS

Elton N. Baker
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Ill.

Cincinnati

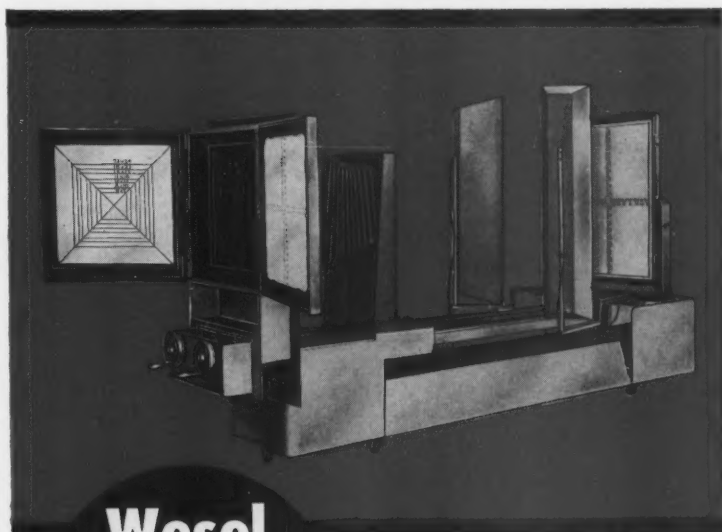
Gilliam Scheduled To Speak

Robert Gilliam of the Dayton Rubber Co., Dayton, O., was the scheduled speaker for the monthly dinner meeting of the Cincinnati Litho Club on Oct. 9.

More than 60 members and guests present at a dinner meeting on Sept. 11 heard a discussion of the technical aspects of processing and running presensitized plates by Robert Kincaid, laboratory technician for the

Minnesota Mining & Manufacturing Co. Other speakers were Carl Etter, local representative; Edward Archbold, salesman, and John Bauer, representing the tape division of the company.

Preceding the business session, those present stood for a minute of silent prayer in memory of Louis R. Hollmeyer, 39, vice president and a director of the Hilton-Hawley Co., ink manufacturers, who died Sept. 8. For many years, Mr. Hollmeyer has been actively interested in the club.



Wesel 25 Camera

A Low-Priced Camera With Many Outstanding Features

The Wesel 25 is a precision piece of equipment with built-in simplicity. It produces superb negatives! All camera operations . . . film loading, automatic timing, automatic sizing and focusing are done from one position at the rear of the camera. Designed for line and Autoscreen offset and photoscreen negatives. Size of back: 25" x 25". Tilting copy holder is 30" x 40". Entire unit is mounted on 3-point vibration-absorbing mounts. Investigate the savings that ownership of a Wesel 25 affords you.

Write for descriptive literature today!

- ★ Lower First Cost Price
- ★ Complete Package Unit
- ★ Saves Floor Space
- ★ LIFETIME Ball Bearings on All Critical Parts
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- ★ LIFETIME Lathe-Like Monorail Design

WESEL MANUFACTURING CO.

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SCRANTON, PA.

Since
1880

Whenever the job demands sharp reproduction and absence of "show through," your best bet is to run it on ATLANTIC OPAQUE—the outstanding paper for quality printing. Recent improvements have made this excellent sheet the top opaque in its field. ATLANTIC OPAQUE—available in Smooth Finish for sharp, detailed halftones...and Vellum Finish for soft-textured halftones—offers you:

- **Color**—The bright, attractive blue-white shade, developed for maximum contrast to today's offset inks, provides the finest background that is possible for all kinds of printing processes.

- **Opacity**—Greatly increased opacity permits even heavy solid areas to be printed with the maximum clarity, minimum "show through"...even in the lighter weights of ATLANTIC OPAQUE.

- **Strength**—Greater strength gives this new sheet

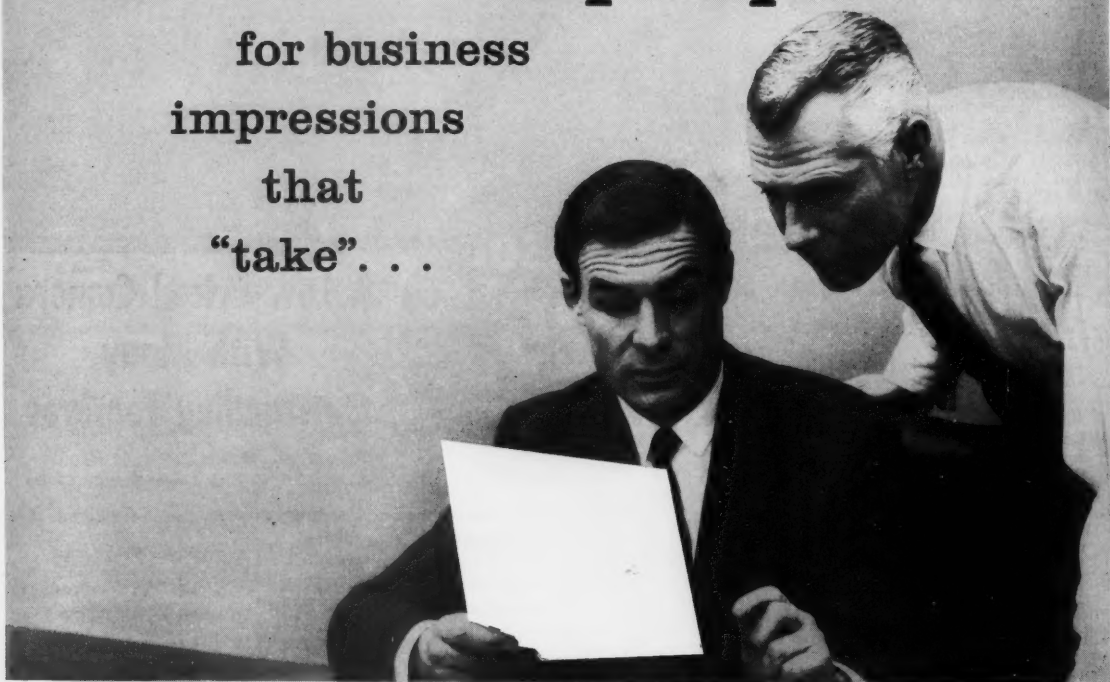
longer life, greater resistance to tearing...without sacrificing the famous bulk and excellent folding qualities of ATLANTIC OPAQUE.

- **Formation**—Especially developed to minimize troublesome "powdering," ATLANTIC OPAQUE'S formation increases printing clarity and virtually eliminates plate scratching.

Always dependably uniform, ATLANTIC OPAQUE remains stable through sheet after sheet, ream after ream. This, together with exacting, careful trimming, reduces make-ready time...permitting steady, uninterrupted, *profitable* runs.

Find out for yourself how ATLANTIC OPAQUE can create better impressions for *your* business. Ask your Eastern Corporation Merchant for free sample packets today, available in Smooth and Vellum Finishes.

put it on
Atlantic Opaque
 for business
 impressions
 that
 "take"...



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FINE PAPERS

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MILLS AT BANGOR AND LINCOLN, MAINE • SALES OFFICES: NEW YORK, BOSTON, PHILADELPHIA, CHICAGO AND ATLANTA

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Dallas

Press Demonstrations Witnessed

Press demonstrations at Storm Printing Co. highlighted the Dallas Litho Club's September meeting. Storm's web-fed rotary offset press, which prints two colors on two sides of a 35" roll and delivers a folded and glued folio at speeds up to 10,000 an hour, was shown. Also in operation for club members to observe was the 24 x 36" Mann offset press.

The guests also were afforded an opportunity to view the letterpress and platemaking departments in addition to a complete bindery and mailing department. The Storm firm has 14 presses in operation.

Cleveland

Members Tour Can Plant

Members of the Cleveland Litho Club toured the Shellmar Division of Continental Can Co. Oct. 12 and visited the Mount Vernon, O., plant Oct. 13. The club will be hosts to the Cleveland Craftsmen Club Oct. 25 for a special program "Printing Ink Goes To College."

New members admitted to the club are Dennis T. Casey, Jr., Richard Frawley, William P. Pell and Theodore Westerhold.

At the September meeting Ted Makarius of Pope & Gray, Inc., Clifton, N. J., discussed press room problems. Mr. Makarius is *Modern Lithography's* Production Clinic columnist.

Milwaukee

Plant Tour, Dance Scheduled

An all day plant visit to Kimberly-Clark Corp., Neenah, Wisc., has been scheduled for Oct. 17 for the Milwaukee Litho Club. A tour will be conducted in the morning through the offset and letterpress coating plants. The afternoon tour will be devoted to the research and development laboratories and the Lakeview mill. A lunch, cocktails and dinner will be given through the courtesy of Kimberly-Clark.

The club's annual harvest dance

will be held Oct. 27 at the Elk's Club. A buffet lunch will be served and there will be dancing and a floor show.

"Paper Work," a film shown by Ronald I. Drake, manager of technical sales service, Champion Paper and Fibre Co., Hamilton, O. was featured at the September meeting. After the film showing, Mr. Drake conducted a general discussion on paper problems relating to lithography. Questions on poor transfer of ink, tinting, piling and picking on multicolor presses were discussed.

Paul A. Heideke Wed

Paul A. Heideke and Mary Richardson Leigh, daughter of Mrs. Lewis Warren Richardson, Bethesda, Md., were married Sept. 15 at Alexandria, Va. Mr. Heideke, a prominent member of the Washington, D. C. Litho Club and a past president of the National Association of Photo-Lithographers, is with Washington Planograph, Inc.

DMAA Presents Awards

Awards for achieving excellence in six basic functions performed by direct mail were made Oct. 1 to the 46 winners of the Direct Mail Advertising Association's 1956 competition. The awards were presented by William Clawson, chairman of the board of judges, at DMAA's 39th annual convention in New York's Hotel Statler.

Some of the lithography firms who assisted in creation and/or production of individual campaigns were Mercury Litho, Litho Art, Devon Press, Berton Printing, United Offset, Brett Litho, Portland Litho Co., Cardinal Lithographing Co., and Marbridge Printing Co., Inc.

Holmsten Named By PIA

Ralph D. Holmsten has been appointed technical director for Printing Industry of America. In announcing Mr. Holmsten's appointment, John M. Wolff, Western Printing & Lithographing Co., chairman of the PIA PAR committee, said that in addition to the new consulting service, Mr. Holmsten will assume ac-

tivities connected with the PIA production PAR project, formerly led by Donald E. Sommer, who now is vice president of Rudisill & Co., Lancaster, Pa.

W. Va. To Spend \$50 Million

A \$50 million expansion program at Luke, Md. has been authorized by the board of directors of West Virginia Pulp & Paper Co., it was announced late last month. The program has been set to cover the next few years.

According to David L. Luke, president, this will be the firm's largest expansion program in one location, and will boost production to more than 800 tons a day, roughly doubling present capacity.

It is part of a five-year improvement program for all West Virginia facilities which was announced almost two years ago. At that time, Mr. Luke estimated costs for the entire program might run over \$100 million, all to be financed within the company.

Eastman Exhibit At Grand Cent.

Eastman Kodak Co. currently is exhibiting a collection of professional color photography at the Kodak exhibit in Grand Central Station, New York. Representatives of the company explained the negative-positive approach to color photography at special showings Oct. 9-11. The exhibit is open to the public until Oct. 27.

Printing Wages Highest In D.C.

Average weekly and hourly earnings of printing employees are the highest manufacturing earnings in the Washington, D. C., metropolitan area, according to figures just released by the U. S. Employment Service. The average weekly earning in the printing trade was \$90.27, while the next highest category, all manufacturing, was \$82.32.

Printing employees in Washington also worked less hours than employees in other industries. In July the average work week for printing employees was 35.4 hours, compared with a high of 42.7 hours for workers in the food products industry.

News

ABOUT THE TRADE



C. W. Frazier

C. W. Frazier Dies

One of the best known lithographers in the industry, and a long and prominent officer of Lithographers National Association, died Sept. 24 at the age of 82. He was Charles W. Frazier, president of Brett Lithographing Co., New York. Death came after a long illness.

Mr. Frazier headed Brett for more than 50 years. He was president of LNA in 1917-18, having joined the organization as a charter member in 1906. He was a director of LNA for 15 years, from 1908-10, 1915-21, 1934-37 and 1939-40, and since the latter term had been an honorary director. In addition, Mr. Frazier had served on the finance committee of LNA for 20 years, 14 of them as chairman.

Mr. Frazier was born in Brooklyn, and was a graduate of the Brooklyn Polytechnic Institute and the New York Law School. He was admitted to the bar in 1899.

In addition to his LNA activities, Mr. Frazier had been director, president and treasurer of the Lithographic Technical Foundation. His widow, two daughters and a sister survive.

Mr. Frazier made his home in Englewood, N. J., where he was active in community affairs.

Wolff Praises Litho Growth

Lithography is serving as a powerful sales adjunct for American business and is geared to meet the challenge of our expanding economy in future years, according to LNA vice president John M. Wolff, vice president, Southwestern Division, Western Printing & Lithographing Co., St. Louis.

Speaking before 200 representatives of the advertising and lithographing fields Sept. 11 at the Willard Hotel in Washington, D. C., Mr. Wolff described the enormous strides of lithography which have catapulted it to a billion dollar part of the printing industry.

The meeting, sponsored jointly by the Graphic Arts Association and Advertising Club of Washington, D. C., also featured a showing of the 270 awards winners in the 6th Lithographic Awards Competition and Exhibit sponsored annually by the Lithographers National Association.

Other speakers included the Hon. Raymond Blattenberger, Public Printer; Garwood Chamberlin, president, Graphic Arts Association, Washington, D. C. and Robert H. Lewis, president of the Advertising Club, who acted as chairman.



Harry Grandt

Grandt Heads Supply Firm

Harry Grandt, vice president and general sales manager of Roberts & Porter, Inc., since 1941, has been elected president, succeeding the late Hugh R. Adams, Jr.

Mr. Grandt joined the firm as a salesman in 1925 after three years with the First National Bank of Chicago. He was appointed manager of Roberts & Porter's New York office in 1936. When Mr. Grandt joined the company, their only office was in Chicago. Since then, 11 other branches have been opened.

As salesman and sales executive, Mr. Grandt travelled to Canada and Mexico, as well as all parts of the U.S., and during the past five years made trips to Europe to investigate new developments in lithography and make available to American lithographers new products that already had been proved in use overseas.

Along with the announcement of Mr. Grandt's election as president,

APES

... the Woods Are Full of Them

"Apes and imitators are brothers," said Elbert Hubbard. "They both mimic and copy their betters, and they both end up hanging from a limb, showing their bare behinds."

We expected we would have imitators and be aped when we originated and introduced the ByChrome Punch and Repeat Machine, and ByChrome Screen Tints.

And, honestly, we don't care. After all, imitations—are *imitations*. And an ape is just a bare behind with a thick hide.

But we are concerned that you, the buyer, are not misled by inferior imitations and copies of the original ByChrome Punch and Repeat Machine, and our ByChrome Screen Tints.

For your own protection, drop us a line and we will send you the name of the authorized dealer in your area of both of these popular and useful ByChrome products.

New Price for the ByChrome Punch and Repeat Machine—\$69.50. Write for illustrated folder.

THE BYCHROME COMPANY, INC.

200 East Lynn Street, Columbus, Ohio



Haile Selassie I, (l.) Emperor of Ethiopia, examines a proof of the first Amharic script to be set on a linotype. G. Djerrahian, director of Artistic Printing Press, on whose linotype the copy

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was set, explains that it is part of the Gospel according to St. John. A page of the first type to be linotype-set in Ethiopia's ancient Amharic script, slightly reduced, is shown at right.

Ethiopia's Amharic Script Set By Linotype

THE solution to the difficult problem of economically typesetting Ethiopia's ancient and unwieldy Amharic language has been accomplished after long years of work by an Ethiopian printer and Mergenthaler Linotype Co.

The printer, G. Djerrahian of the Artistic Printing Press in Addis Ababa, evolved a plan to reduce the number of matrices required to print the script. Cooperating in the enterprise were typographic and engineering experts from Linotype & Machinery, Ltd., the English subsidiary of Mergenthaler.

Adaptation of the script for machine composition was followed close-

ly by Emperor Haile Selassie I. Long interested in education, the Emperor expressed his appreciation of this important development in increasing the potentialities of printed communications and education in Ethiopia.

The Linotype to be used for Amharic was equipped with matrices for composing in Arabic and English. Since the accumulation of different characters on the key-buttons was likely to prove confusing to the operator, Linotype officials conceived the idea of furnishing the machine with a supplementary keyboard for the Amharic characters. This other keyboard is superimposed on the machine keyboard when Amharic is required.

the board of directors announced the election of the following officers: Herve W. Surrey, Sr., vice president; Walter Mueller, treasurer; and Samuel A. Rothermel, secretary.

Noted Lithographer Dies

W. P. Mille, 78, lithographic engraver and artist, died in Yonkers, N. Y., Sept. 1. Mr. Mille was noted for his designing of postage, currency, bond and stock certificates for South American and European, as

well as American customers. He was a member of Lithographia, an organization of lithographic craftsmen.

According to Myron Jonas, Myron Jonas Co., New York, a personal friend of Mr. Mille, he liked to recall that era before the impact of photography and offset changed a leisurely, dignified craft into a high-speed business.

Mr. Mille was apprenticed to a New York Litho engraver about 1892, when he was 14. He became

an expert lithographic engraver and also a designer of labels, letterheads, stock certificates and other lithographic items. He was constantly experimenting with new techniques and his unique interpretations of bas-relief plaques and embossed materials in wave-ruled techniques are widely used today.

Anderson Is New Davidson Head

Harry C. Anderson, formerly associated with A. B. Dick Co., has been elected president of the David-



Harry C. Anderson

son Corp., Brooklyn, a subsidiary of Mergenthaler Linotype Co., it was announced last month by Martin M. Reed, Mergenthaler president.

At A. B. Dick, Mr. Anderson was vice president in charge of sales.

Too Much Fraternizing

For many years, it has often been the unfortunate custom to "run down" the processes of the other fellow . . . when we should have been boosting graphic arts. We have been fighting a "battle of the processes" which has much in common with the famous "battle of the sexes". . . it has been said that the "battle of the sexes" will never be won by either side, because there is too much fraternizing with the enemy. Well, we're in the same boat!

From a talk by Howard Carroll, president of Carroll Photo-Engraving Service, San Diego, before the 37th annual convention of the International Association of Printing House Craftsmen, Los Angeles, Aug. 13.

YOURS

on request:

this informative book

to help you select

the right paper

for each of your

business records

Parsons
PAPER

... makers of permanent
prestige business papers



WRITE ON YOUR BUSINESS
LETTERHEAD FOR BOOKLET
1F1: PARSONS PAPER CO.,
HOLYOKE, MASS. © PPCO
1936



A Friendly Invitation: You are cordially invited to become a charter member, during 1936, of **The Parsons King Cotton Club** ... an exclusive group of men and women, who in the designing, producing or selling of fine printing, strive constantly to attain the high-quality craftsmanship on which the Graphic Arts Industry has been built.

Parsons Guide Book Helps Printers Sell Better Business Forms

These are the reasons why Form Printers stock and recommend Parsons cotton fiber record-keeping papers:

- A large variety of matching colors fit the needs of record-keeping color control systems.
- Parsons ledger and index papers offer a wide range for most form uses, sizes, or weights.
- "Solid" sheet formation (in any weight) will not dog-ear from frequent hard use.
- Parsons smooth, uniform "no glare" surface takes hand or machine posting perfectly and erases without roughening or discoloration.
- Cotton content sheets add longer life to important records... (Parsons Extra No. 1 100% grade is often specified for permanent records).
- Parsons cotton content papers run well on letterpress, offset or pen-ruling equipment.
- Accurate, efficient record-keeping is improved by quality form printing on high grade cotton content papers.
- Recommending Parsons papers adds prestige to a quality printer's reputation.
- Service on all Parsons papers is fast — shipment from paper merchants' stocks or mill stocks on same day your order is received, eliminates delivery problems.
- Parsons Guide Book for Record-keeping Papers helps printers and users get the *right* paper for the *right* record... making better business for both.*

These are the famous Parsons Cotton Fiber Record-Keeping Papers:

Cotton Content	Parsons Ledgers
100% Extra No. 1	Scotch Linen Ledger
100%	Parsons Linen Ledger
75%	Defendum Ledger
50%	Mechano Form Ledger
25%	Crest Ledger
	Parsons Indexes
100%	Parsons Index
50%	Mechano Form Index
25%	Arkton Index
	Crest Index

Parsons is preferred by your customers

When you recommend a Parsons Paper, it makes sense to your customer. He has been pre-sold by Parsons advertisements stressing prestige, performance and permanence. In 1936, Parsons advertising will appear in 12 magazines, including *Business Week*, *The Office*, *Office Executive*, *Office Management*, *Journal of Accountancy* and *Fortune*. To cash in on this advertising, it will pay you to stock and recommend Parsons bonds, writings, ledgers and indexes.



* Mail to Parsons Paper Company • Holyoke • Massachusetts
Gentlemen:

- ☐ Please send your guide book: *How to get what you need in record-keeping papers and index cards.*
- ☐ I would like to become a charter member of The Parsons King Cotton Club.

YOUR NAME.....

COMPANY.....

ADDRESS.....

STATE..... YOUR POSITION.....

**If you fill
your developer
tray more
than once
a day...**



**YOU need
Premium GRAPH-O-LITH® Developer**

dr

Cameramen tell us they use one tray of Premium Graph-O-Lith all day long. There's pretty general agreement that you get at least 50% more negatives perfectly developed with Premium Graph-O-Lith than with any other developer.

One thing we know for sure is that Premium Graph-O-Lith developer gives full shadow dots and highlight detail right up to the point where the bath is completely exhausted. It does perfect work for the full life of the developing bath. And it is the only developer that does.

But don't take our word for it—try it and see for yourself. We'll be glad to send you a trial 2-gallon can of Premium Graph-O-Lith absolutely FREE. Send for yours today.

Premium Graph-O-Lith is the finest photo mechanical film and paper developer HUNT has ever produced... a maximum contrast developer for process film and plates, thin-base strip film, and photo-mechanical papers.



Manufacturing
Chemists



Established
1909

PHILIP A. HUNT COMPANY
PALISADES PARK, N. J.

Chicago • Cleveland • Cambridge • Brooklyn • Atlanta • Dallas • Los Angeles • San Francisco

PIP Offers Paper Course

John D. Williams, vice president of D. L. Ward Co., Philadelphia paper merchants, is the instructor in a new course titled "Paper and Papermaking" offered by Printing Industries of Philadelphia, Inc., in its evening school program.

The course was scheduled to start Oct. 10 at the association's headquarters. It requires one evening a week for 20 weeks and was designed for persons whose work it is to select, specify or purchase the right kind and quality of paper for printing.

Employees Mark Long Service

Two office employees of the Manz Corp., Chicago litho firm, observed the anniversaries of their long service with the company last month. For Harry R. McNabb it was the end of 50 years in the post of traffic manager, while Ethel A. Wright marked 49 years as cost accountant with the firm.

R. Pierce Reid Dies

R. Pierce Reid, 57, a leader in the lithographic and packing industry in Canada, died Aug. 27 in Montreal. A former president of Consolidated Lithograph Manufacturing Co. Ltd., which he joined in 1921, Mr. Reid became a director of Somerville Limited and managing director of the Consolith Division when Somerville purchased the assets of Consolidated Lithograph. He retired in 1955.

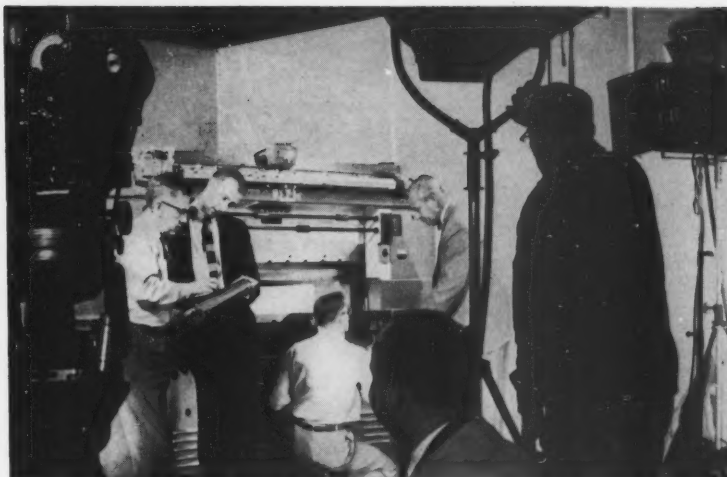
Testimonial Given For Sweet

Carl W. Sweet, vice president and plant manager of the Milwaukee division of the Cottrell Co., subsidiary of Harris-Seybold Co., retired Sept. 30. He was in the printing machinery field for 35 years, starting with the Menasha Machinery Co. Mr. Sweet was the guest of honor Sept. 13 at a testimonial dinner at Hotel Schroeder.

Buffalo Co. Appoints Stahlka

The appointment of Clayton A. Stahlka to the new position of vice president of sales and promotion has been announced by Harry Hoffman,

New Harris-Seybold Movies Cover Advances in Paper Cutting



Camera crew prepares to start shooting on one of two new movies on paper cutting recently produced by Harris-Seybold Co. The films depict paper cutting equipment and techniques which help save money, reduce accidents and improve production and accuracy stand-

ards. One movie, "The Safer Saber", features the new Seybold Saber line of 41", 47", and 54" power paper cutters. The other, "Accuracy by the Carload," demonstrates Seybold's new line of 65", 85", and 100" full-hydraulic cutters and trimmers.

chairman of the board of Harry Hoffman & Sons, Buffalo, N. Y., lithographers. Prior to joining Hoffman, Mr. Stahlka was advertising and sales promotion director at Morrison Steel Products Inc., in Buffalo.

Litho Art Director Dies

Oscar F. Roller, art director of the Ketterlinus Lithographic Manufacturing Co., Primos, Pa., died Sept. 15 in Philadelphia, following a short illness. He was with the firm for more than 50 years, and had been art director for 25 years.

Web Offset Post For Johnson

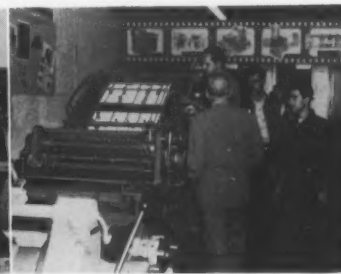
Thomas H. Johnson, Harris-Seybold Co., has been named to the new post of chief development engineer for web offset presses, it was announced early this month. Mr. Johnson will be located at The Cottrell Co.'s Westerly, R. I., plant. Cottrell is a subsidiary of Harris.

Mr. Johnson has been in charge of web press engineering for Harris-Seybold in Cleveland since joining the firm in 1949. He has had 26 years of engineering and development experience on web printing presses.

Consolidated International Equipment Opens New York Office



Walter E. Soderstrom, executive vice president of the National Association of Photo Lithographers, cuts the ribbon as Consolidated International Equipment & Supply Co., Chicago, formally opened its "Printerama" show at 330 W. 26th St., on Sept. 24. An exhibition of graphic arts



equipment included darkroom cameras, offset presses, a Step and Repeat machine, and an electronic engraver. Standing at Mr. Soderstrom's right is Al Levine, executive vice president of Consolidated. To his left are Benjamin Sugarman, president, M. A. Ross, eastern sales manager.

Wood Leaves Harris-Seybold

William H. Wood recently left Harris-Seybold Co., where he was director of research, to do general consulting work in the graphic arts



W. H. Wood

industries. Mr. Wood established the Harris-Seybold Research Laboratory in 1936, being organized in Cleveland by the late A. F. Harris and his son, the late A. S. Harris.

According to the company the Harris-Seybold laboratory was the first of its kind to be established by a printing press manufacturer to do research on products, processes and machinery for the graphic arts.

Thumin Appointed by Lawson

The appointment of Carl Thumin to the newly created post of vice president in charge of manufacturing, was announced last month by the E. P. Lawson Co.

In addition to new duties, Mr. Thumin will continue as chief engineer of the firm. He joined the company in 1952 and prior to that was associated with the General Electric Co.

Beckham Elected by D. C. GAA

John S. Beckham, general manager of Newspaper Printers Corp., was elected president of the Graphic Arts Association of Washington, D. C., Inc., at the Association's 42nd annual meeting Sept. 17. He succeeds Garwood Chamberlin of E. A. Merkle, Inc.

Also elected were Ralph E. Dewhirst, American Printing Co., vice president; Clarence E. Harlowe of

Harlowe Typography, Inc., recording secretary; and David Porterfield, Jr., Arrow Service, treasurer. George P. Mallonee continues as executive secretary and Doris T. Hall as assistant executive secretary.

Harry J. Leahy Dies

Harry J. Leahy, president of Magill-Weinsheimer Co., Chicago, died Sept. 1 in Presbyterian Hospital, that city, after a brief illness. For 35 years Mr. Leahy has been closely identified with the progress of the firm which he entered as an office boy at the age of 15, eventually to become president of this half century old lithographing and printing concern. For two years he worked intensively on preliminary planning for the new plant, opened in suburban Lincolnwood last fall. Surviving are his widow and five children.

POPPI Adopts Ethical Code

The Point-of-Purchase Advertising Institute, Inc., New York, has adopted a code of ethical trade practices, it was announced last month. The new code represents more than a year of careful preparation and discussion at POPAI membership meetings in Chicago and New York, and at meetings of the trade practices, trade relations and executive committees.

The code aims "(1) to encourage and maintain even higher standards of ethics that will be a credit to the advertising profession in general, and (2) to foster fair practice among competitors."

Norwood Heselbach Dies

Norwood Heselbach, secretary of Baltimore Litho Club, died recently following a long illness. He was associated with International Printing Ink Co. in Baltimore for 29 years as an ink chemist, service station manager and salesman.

New Ink Firm Established

A new ink company, Kendon Supply Co., has been established at 1998 Filbert St., San Francisco, by two former California Ink Co. men, Kenneth Cavagnaro and Donald O'Farrell. They will handle letterpress, lithographic and specialty inks.

Air Minded Litho Firm

Progress Lithographing Co., Cincinnati, a company which makes frequent use of an area helicopter service for its rush jobs, recently took to the air again, but this time it was for a foreign job of advertising material.

Early in September an order was received from a customer in Stockholm, Sweden, with instructions that a shipment be delivered by Sept. 7. Progress swiftly completed the job and rushed the material by KLM Royal Dutch Airlines direct to Stockholm. The air freight charge was \$2,500.

TV, Colored Movies At Forum

Local No. 1, Amalgamated Lithographers of America, and the Metropolitan Lithographers Association, joint sponsors of the LTF Lithographic Forum Nov. 30-Dec. 1, have worked out the projection problems involved in presenting a forum by closed circuit TV and colored movies to an audience of 3,000 or more people. Special projection equipment will permit the use of theatre-size screens. The litho forum, to be held in New York's Manhattan Center, will be the first presentation of litho technical developments to such a large audience, the forum committee said.

Because this MLA-ALA forum is designed to bring lithographic journeymen up-to-date in new developments and tricks of their trade, employers are asked to follow the custom of other lithographic centers and pay half of the ticket cost to encourage their employees to attend.

The Nov. 30 session will begin at 5:00 p.m. Special tickets are available for Dec. 1 sessions for those not able to attend Nov. 30. A large out-of-town registration for Dec. 1 only is expected.

Until Nov. 1 tickets for both days will be seven dollars and for Dec. 1 only, five dollars. Coffee breaks both days, and a box lunch Dec. 1, are included in the price. Reservations with check should be addressed to MLA-ALA Forum Committee, Room 1431, 33 West 42nd St., New York 36, N. Y.



Proudly Presents

SPECTRUM

The Most Important Advance in Printing Ink Service Since Printing Ink Was Invented

Crescent's Spectrum Service is created to reduce your costs, save you money, and make your work more profitable for you. It gives you all the advantages of complete custom ink service plus the economies of mass production. With Crescent's Spectrum Service you gain these advantages:

1. It Saves Time. Press down-time is reduced. Waiting for color okays is practically eliminated. There are no delays for ink at critical moments.

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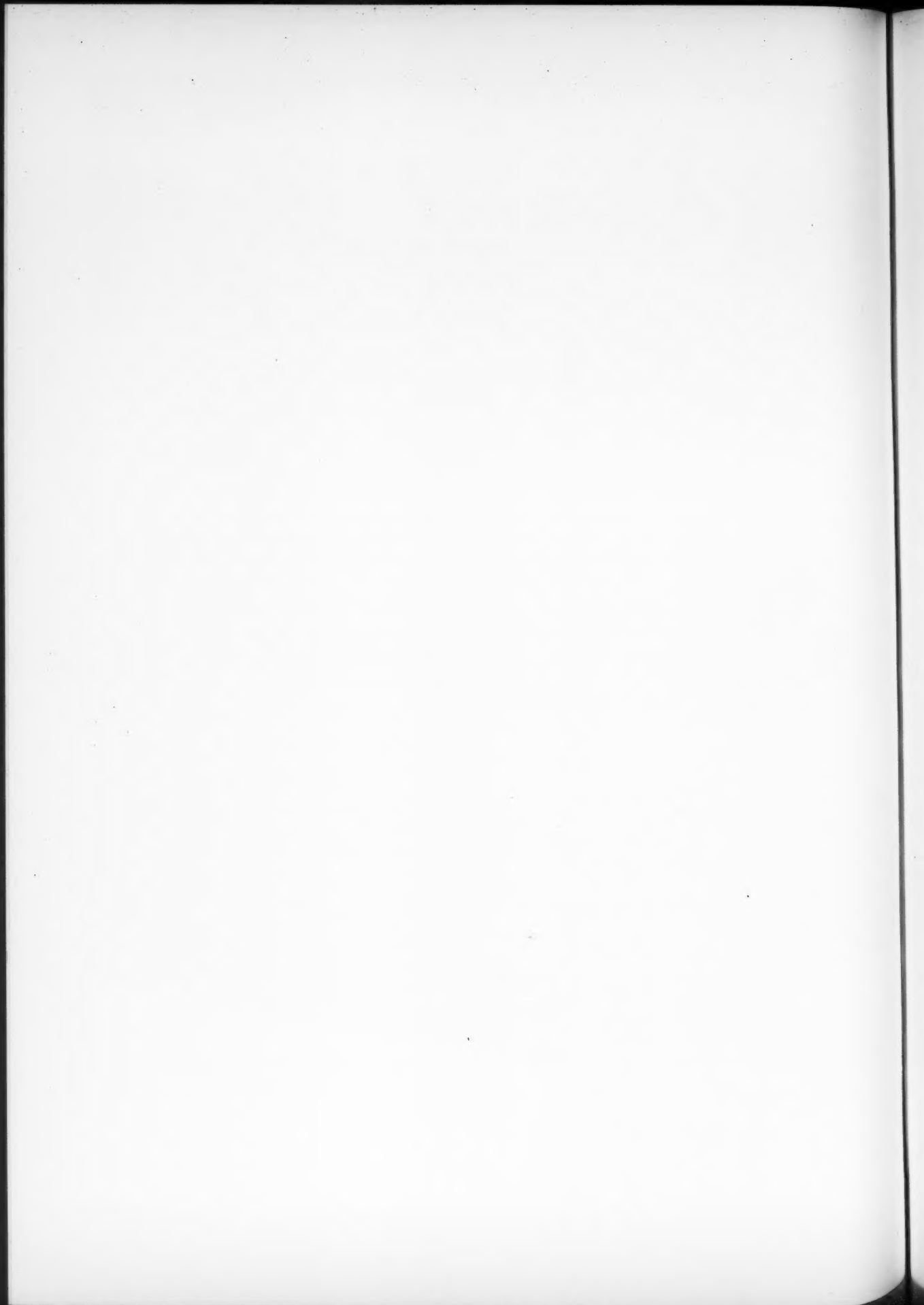
Company.....

Address.....

City.....

Zone.....

State.....





Robert Niederhauser (l), manager, sales engineering, Harris-Seybold Co., in the midst of an illustrated talk at recent conference of ALA, AFL-CIO, at Estes Park, Colo. Huge board on stage was used to illustrate graphically 50 years development of

offset presses. Center, John Lupo, Di-Noc Chemical Co., New York, discusses color techniques with Cliff Jewett of Minnesota Mining & Mfg. Co. Both men addressed the conference. (r) T. A. Dadisman, vice president, Printing Developments, Inc.

Many Lithographers, Suppliers at A. L. A. Conference

THE tension which exists between the Amalgamated Lithographers Association and the International Typographical Union became apparent at the Mountain Region Conference of ALA, AFL-CIO, held recently at Estes Park, Colo. A large number of lithographers from the area, many industry officials and suppliers attended the conference which was under the direction of Martin Grayson, ALA International vice president.

The program, which presented to delegates, members and guests a combination of union and technical education, was designed to interest both employers and employees, and help develop a better understanding of problems that affect the industry. There are said to be over 3,000 lithographers in the mountain region of ALA, which covers 13 states.

Resistance to I.T.U.

Benjamin M. Robinson, general counsel for ALA, addressed the conference on present and future jurisdictional matters. He pointed out I.T.U.'s jurisdictional efforts to come into the lithographic trade, and said that Amalgamated "will resist to the very end any effort by the I.T.U. to make inroads upon the traditional jurisdiction of the Amalgamated."

He predicted that the battleground

will be specific plants and that the Amalgamated would take the I.T.U. on in any of those localities where I.T.U. seeks to press for new jurisdictional claims.

The battle has already started out on the West Coast and Mr. Robinson said he did not see how Amalgamated could avoid an increasing number of such problems in various places in the next few years, starting either in the fall of this year or the early part of next year.

He appealed to management to work with labor for the good of the industry by pooling the wisdom of both parties. He referred specifically to Amalgamated's effort about a year ago to set up a permanent structure to work with the Lithographic Technical Foundation for the sole purpose of examining the training problems of the industry, but that its efforts failed. Later Amalgamated organized a Joint Lithographic Advisory Council, a bi-partisan board of management and labor representatives on a national basis to examine problems and do things jointly for the benefit of the lithographic industry. After a couple of years activity, that organization, too, fell by the way.

On the hopeful side Mr. Robinson said he thought it still will be possible to get cooperative action—"for

management and labor to sit down once in a while in contemplative proceedings to chart the future and make five grow where there were four before."

Based on America's expanding economy and population growth Mr. Robinson predicted that in a few years, "we will be turning out in lithographic plants in 30 hours and in less than 30 hours, as much and more work that you turn out now in 35, 36, 37 and 40 hours. We are reaching the point where the goal of life will be the enjoyment of life," he said, "and not how long you have to work to find a little time to enjoy it."

Dadisman Looks to Future

T. A. Dadisman, vice president, Printing Developments, Inc., a subsidiary of Time, Inc., gave an illustrated talk on industry problems which also pin pointed recent developments and a bright future for the industry.

He said the contribution of the Lithure and Lithengrave hard-metal, offset plates is already known to many in our industry. "As you all know, the copper-plating of aluminum for the negative process was originated at the Lithographic Technical Foundation. At the same time our Springdale laboratory was de-

THE PRINTER AND THE KITE

The most famous flier of kites in history was a printer. As every schoolboy knows, Benjamin Franklin flew a kite in a thunderstorm and thus determined the electrical nature of lightning. With his practical printer's mind, Franklin was also the first to turn this newly found energy to a useful application. He devised the world's first electrical battery and the first electrical cooking apparatus.

Practical ingenuity is second nature to every printer. Every step of printed production calls for the application of skill and common sense because each job is different in its specifications. Type composition, layout, plates, and presswork are a combination of variables which calls for a practiced skill and the instinctive solution of problems. The selection of paper, too, is one of the variables in which the printer's good judgment may be relied upon to achieve graphic success.

Printers know that the Westvaco line offers the proper and practical paper for outstanding results in letterpress, gravure, or offset lithography. Weight and texture, uniformity and durability during the press-run, and economical advantages are factors that invariably call for a Westvaco printing paper. Printers and advertisers have long ago discovered that Westvaco fine papers enhance the visual attractiveness of a graphic message at no extra cost.

Take Sterling Offset Enamel, for instance, which is used for reproducing "The Fish Kite" by Robert Vickrey at the right. You'll see this and other papers of the Westvaco family in graphic action when you receive Westvaco Inspirations, No. 205. If you are not on the mailing list for this publication, write to any of the company addresses on this page or to nearest Westvaco distributor.

COVER ARTIST

Robert Vickrey, a young painter who has already won considerable national recognition, was born in New York in 1926. He studied at Wesleyan University, at Yale and the Art Students League. His paintings have been purchased by the Whitney Museum, the Lakeland Museum, the Rio de Janeiro Museum of Modern Art and by private collectors. His work has been exhibited at the National Academy Annual Show, the Metropolitan and Springfield Museums and the Circulating Exhibition of the Museum of Modern Art, New York City.



WEST VIRGINIA PULP AND PAPER COMPANY

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THE FISH KITE, BY ROBERT VICKREY. FROM MIDTOWN GALLERIES

Westvaco Inspirations for Printers 205

veling another copper-plating aluminum technique, so PDI could change its Lithure plate to aluminum-base. When Michael Bruno, director of research for LTF, and I learned of each other's plans, it was natural for us at PDI to make their idea available to the general industry. That is the background of the Lithengrave Plate."

He told about a new concept in printing, in the field of polymer chemistry, which indicates a possible joining of letterpress and lithography in the form of a plastic plate. "The relief image," he said, "is formed photographically through use of high contrast, screened negatives or a negative made like an offset negative. The process adaptation is still beset with problems, but our chemists and engineers can make it work."

He also said his laboratories are close on the heels of a trouble free ink roller for use in lithography, and scientific knowledge obtained in packing material studies they have for letterpress should also lend itself to an extremely long life high fidelity blanket material for offset.

Mr. Dadisman feels that the entire graphic arts industry is on the doorstep of an excitingly new era but that it is also a time for mutual interest of both the research labs and management, a challenge to be met by education and intelligent planning.★

NYEPA Sets Contest Deadline

The deadline for entries in the 15th Exhibition of Printing, sponsored by New York Employing Printers Association, Inc., is Nov. 16. Any printing, whether done by lithography, gravure, letterpress or any other process, which was manufactured in the New York metropolitan area since Nov. 15, 1955, is eligible.

All major fields of printing use will be represented. Some of the classifications are advertising printing, books, public and employee communications, community (non-commercial) printing, stationery, periodicals, business forms, point-of-purchase printing, and instruction and professional manuals.

B&B Annual Report Wins

Brown & Bigelow's annual report has been judged best in the graphic arts field for the 13th year. Final ratings by an independent board of judges were announced early this month in the 16th annual survey of *Financial World*.

The award will be presented to Charles A. Ward, president of the St. Paul advertising specialties firm, at the annual awards banquet in Hotel Statler, New York, on Oct. 29.

A total of 5,000 annual reports were entered this year in the international competition. Approximately 1,700 reports qualified and these were judged in 100 industrial classifications for bronze trophies. In the graphic arts classification, Kingsport Press placed second, while general outdoor advertising placed third.

Tumbling Profits Checked

At a regular meeting of Printing Industries Association, Los Angeles, held last month, John G. Gerken, management consultant, told 175 printers and lithographers that prices for all types of printing will be increased about 10 percent in southern California in the immediate future. In making the announcement, Mr. Gerken said a 75 percent sales increase over the past five years had failed to absorb material and operation cost increases.

Mr. Gerken advised his audience that they had reached the economic limit in absorbing increased costs, and that even higher sales would not reverse the downward trend of profits unless price adjustments were made rapidly.

Modern Art and Printing

"Modern Art Influences on Printing Design," an exhibition and documented survey of the field, recently was sponsored, by the American Institute of Graphic Arts and shown at Freedom House, New York.

The exhibition presented modern art movements chronologically, and after setting the theme by displaying a color print by a master, supplemented each with appropriate printed

illustrations of the work of designers for contemporary direct mail, advertising, packaging, record-album, book jackets, and posters.

Course Aided By R&E Council

The School of Printing Management, Carnegie Institute of Technology, is offering this fall, in addition to its regular curriculums, a new four-year program titled, "Graphic Arts Technical Option."

The curriculum, developed in cooperation with the Research and Engineering Council of the Graphic Arts Industry, resulted from the printing industry's greater use of engineering principles and the coordinate lessening of the craft procedures.

Graphic Arts Parley in France

More than 40 participants from the U.S., France, Belgium, Holland, and Britain attended a recent seven-day Ecole de Lure (a yearly graphic arts "retreat" at Lurs, France) and discussed, among other things, the importance of filmsetting for the graphic arts industry.

This unique gathering was founded by the French graphic arts leader, Maximilien Vox, who has developed property in the partially ruined town of Lurs, perched on a hill in the French Alps, in order that world printing and allied problems may be thrashed out in pleasant and original surroundings.

LNA Issues Bargaining Manual

The LNA Collective Bargaining Manual, containing a summary of contracts negotiated in 39 lithographic areas in the U.S., was issued last month by the Lithographers National Association's Industrial Relations Dept., under the supervision of Quentin O. Young, director.

While primarily designed as an aid to members engaged in labor contract negotiations, the Manual has much broader application.

It affords a ready reference to established working conditions in the major lithographic areas, and its use extends over a wide range of the industry.



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LTF Conducts Pittsburgh Forum

The first use in the Pittsburgh area of closed-circuit television as an effective educational demonstrator took place Oct. 5 at the Pittsburgh Technical Forum at Carnegie Institute of Technology.

This first use of TV was combined with regular lecture sessions on the latest techniques in lithography. The two-day program, Oct. 5-6, was presented by the Lithographic Technical Foundation and was sponsored by the Printing Industry of Pittsburgh Inc., in cooperation with Carnegie Institute, Local No. 24 of the Amalgamated Lithographers of America, and the Pittsburgh Club of Printing House Craftsmen Inc.

Highlights of the program were lectures and demonstrations given on albumen platemaking, bi-metal plates, the elimination of stripping, and new press wash-up methods. Also discussed by seven members of the LTF staff were new light for contract printing, paper troubles and how to test them, LTF's new ungrained deep-etch plate, and the handling of plates on press.

In his talk on color masking, Frank Preucil, LTF supervisor, presented demonstrations which helped clarify the aim of masking and the methods needed for specific jobs. The demonstration showed why visual judgments of tone and color are so frequently wrong and why controlled measurements are needed of the hue, transparency, and trapping ability of process inks.

Award To Education Council

The National Safety Council will present its award for promoting safety in the printing industry this year to the Educational Council of the Graphic Arts Industry, Inc. The award will be presented Oct. 24 and will be accepted by Elmer G. Voigt, president of the Council. Mr. Voigt is chairman of the board, Western Printing & Lithographing Co., Racine, Wisc.

The Council will receive the award for its work in developing a complete safety training program for use in graphic arts industry plants and for



Brown & Bigelow Install Huge Harris Press

Calendars began streaming off the new 77" Harris press—largest of its kind—put into operation in the Brown & Bigelow graphic arts plant in St. Paul recently. Here Charles A. Ward, president, points to a huge sheet of religious calendars (Official Holy Name Calendar) as it comes from the press. Others from left are D. W. Brabeck, vice president and general sales manager; K. B. Priester,

senior vice president manufacturing; and E. C. Peterson, executive vice president administration. The five-color, sheet-fed, double delivery press weighing almost 100 tons handles paper nearly 6½ feet wide. The press costing \$500,000 is part of a \$3,000,000 plant expansion and improvement program instituted this spring by the St. Paul specialty advertising firm.

use by local associations of printers. There were 20 other trade associations in competition for the prize.

LTF & PIA Hold Conferences

The first combined Coaching Conferences covering the LTF & PIA foreman's management program and the LTF-PIA visual economics program were held in New York early this month.

The visual economics program, held Oct. 6 and 8, was based on a "flannel chart" presentation, adapted to the printing and lithographic industry from a prototype originally developed by E. I. du Pont de Nemours & Co. The main purpose of the program is to educate the employee in general economics and particularly the economics of the printing industry.

Winning Label Lithographed

The H. D. Lanza Private Stock wine label has received the Gold Medal Award at the recent California State Fair in Sacramento. The Lanza label, designed and produced by Schmidt Lithograph Co., San Francisco, took the top award in a field of 142 labels.

PIA Schedules Executive Mtg.

A Top Management Conference for the Printing Industry of America has been set Jan. 28-Feb. 1 at the Hollywood Beach Hotel, Hollywood, Fla. Horace Hart heads the committee on general management.

Last year the conference was called a President's Conference and the name has been changed this year in anticipation of attracting top executives and members of boards of directors, as well as presidents.

Donald C. Cottrell Dies

Donald C. Cottrell, president of The Cottrell Co., a subsidiary of Harris-Seybold Co., died Sept. 16. On Sept. 7 it had been announced that Mr. Cottrell would retire as president of the company at the end of the month. He was 64 at the time of his death in Westerly, R. I., which was his birthplace and the home of The Cottrell Co.'s headquarters.

Mr. Cottrell was named president of the company in 1949, after serving as vice president and general manager of Cottrell's Milwaukee Division since 1936. In 1953 he headed negotiations for The Cottrell Company which led to its acquisition by Harris-Seybold.

How does label paper Keep towels fresh and lovely... Indefinitely?

You might think the phrase "keep towels fresh and lovely . . . indefinitely" is a big assignment for a little label. It isn't.

To prove our point we cite the case of the country's leading towel manufacturer.

His problem, briefly, was to give the shopper proper directions for laundering his towels. Cluttering the handsome design of the label with detailed laundering instruction was out of the question.

We suggested he use our famous M-J 534 Peelable Gumming. The handsome label design was printed on the coated side. One line of 6 pt. type was added at the bottom of the label. It read, "To keep these towels fresh and lovely, follow laundering directions on reverse side". On the gummed side, the laundering directions were printed in detail.

The housewife peels off the label. The adhesive leaves no gum on the towel, no stain. She reads the laundering directions and knows just how to keep her towels fresh and lovely . . . indefinitely.

Since using this peelable label, the towel manufacturer has received compliments on the laundering qualities of his towels. He is performing a valuable service for both himself and the consumer. And, needless to say, M-J benefited, too. Millions of towels require millions of labels.

The Sign of The Most Complete Label Line! . . .

M-J
LABEL PAPERS



Your labeling problem may have nothing to do with towels. However, it does have to do with label paper.

You know from experience that a label is no better than the paper on which it's printed. McLaurin-Angier offers you over 100 years of experience gumming and coating paper, *plus* the most complete line of label papers in the country.

Whatever your label problem in printing or packaging, we welcome the challenge to meet it and solve it.

It's true. A label is no better than the paper on which it's printed.

Specify M-J label paper and you start with the *best!*

Address inquiries to Brookfield Sales Office, Brookfield, Mass.

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M-J Self-Adhesive DRY-STIK • M-J OLD TAVERN • M-J Guaranteed FLAT GUMMED

Accidents Up in Printing & Publishing Industry

THE accident experience of the nation's printing and publishing industry is getting worse, latest tabulations of the National Safety Council, covering 1955, indicate.

In 1953 printing ranked as the 14th safest industry among the 40 for which the Council keeps records. In 1954 printing had dropped to 16th place and last year it slipped down still more to 18th position.

Specifically, the Council report shows that printers sustained 6.68 disabling injuries for each 1,000,000 man-hours worked in 1955. This is barely half a point above the general average of 6.96 for all 40 industries included in the Council study.

In rating the severity of printing plant accidents the industry's standing also dropped. For 1955 it was in 6th place, four steps below the second place position attained in 1954. This severity rating is figured this year on a new system based on a time charge in days per million man-hours worked, which makes comparison with previous annual records, based on the discarded system, difficult. A slight improvement is, however, indicated in the number of days lost by printers due to disabling accidents. In 1954 the average time lost was 25 days, while last year it was only 24 days.

The Safety Council this year has been giving special attention to injuries due to falls while at work. One analysis of 500 injuries occurring in printing plants has revealed that among those 500 there were 79 disabling injuries due to falls. Of these 27 were falls from presses, 14 from ladders or stairs and 43 on slippery surfaces. The Council notes, in addition, that falls account for more accidental deaths than any other cause excepting traffic deaths.

Continuing, the Council reports that the Folding Paper Box Association listed 420 disabling injuries last year among printers employed by its member companies and that 67 of these resulted from falls. One large printing firm reported that among

the 102 disabling accidents occurring to its employees over a 20-month period, six resulted from falls. Of the total compensation cost of \$8,879 paid by the firm for the 102 accidents, \$2,772, or over one-fourth of the sum, went for these six accidental falls alone.

When the Safety Council's printing and publishing section meets during the National Safety Congress in Chicago later this month, these two somber matters—the steadily increasing frequency of accidents to printers while at work, and the serious situation on falls—are expected to be given special attention.

Dates for the printing and publishing section's sessions are Oct. 24-25 at the Conrad Hilton Hotel. Raymond B. Blattenberger, Public Printer of the United States is scheduled as keynote speaker and three other outstanding authorities on phases of industrial accident prevention are also slated for the program.

LNA Announces Exhibit Dates

The LNA Awards Exhibit, shown annually from coast to coast, wound up its last showing at Toledo, O., Oct. 9. The next definitely scheduled showing will be held Oct. 23-24 at Indianapolis, Ind.

Following is the tentative schedule, subject to change:

November	
6-7	San Francisco
12-13	San Diego
15-16	Los Angeles
19-21	Albuquerque
December	
3	Denver
10	Racine, Wisc.
13	Milwaukee
January	
1957 Printing Week	Baltimore

Reed in New Building

Merrill Reed, San Francisco lithographer, has taken over a two-story 10,000 sq. ft. building at Eighth and Howard St., San Francisco, after many years at 414 Jackson St. General manager of the plant is H. A. Sandy Miller. Hal Hansen has been appointed sales manager of the ex-

panded operation. The plant handles advertising, commercial and trade work. A new Miehle 29 is being added to the three presses already in operation.

Schaefer Joins Consolidated

Frank J. Schaefer has joined Consolidated Lithographing Corp., Carle Place, N. Y., in the capacity of liaison between sales organization and production departments. He was formerly superintendent of plant for Snyder and Black, Inc., New York. He was with that company for 25 years.

Litho Course At U. of Chicago

The University of Chicago recently announced an integrated program of formal training for men and women in the publishing and in the graphic arts industries. A series of lectures, demonstrations, discussions, and field trips were started Oct. 2 in the University's downtown center at 19 S. LaSalle St.

Lithography is given attention in a basic course on "Printing Processes," required by all candidates for a certificate issued on completion of the full course. Covered in this class will be a study of the process in terms of quality and price factors, paper, speeds and length of runs, platemaking, and new developments. John P. Baugh, plant manager of Rand McNally & Co.'s Conkey division, is the instructor.

Einson-Freeman Names Boman

William J. Boman has been appointed general plant administrator of Einson-Freeman Lithographing Corp., Fair Lawn, N. J., it was announced Sept. 17. Mr. Boman was plant superintendent and manager of the Arvey Corp., which he has left after 26 years of service.

Perrotto Joins Siebold

It was announced last month that Al Perrotto, formerly with Senefelder Co., New York ink manufacturers, has joined the sales staff of J. H. & G. B. Siebold, Inc., in the firm's New York office.

Litho Repro-Proofs Discussed

Charles W. Latham, lithographic consultant, New York Employing Printers Association, presented a talk on reproduction proofs for lithographers at the September meeting of the Typographers Association of New York.

Mr. Latham supplemented his talk with visual material, and commented that in the graphic arts, each step that occurs between original and final reproduction means some loss in quality. Therefore, the original must be as near perfect as possible.

In lithography, the first step towards reproduction is the camera, which, Mr. Latham said, "is far from perfect." The cameraman has to guard against optical troubles, halation, flare and vibration. Some of the operations outlined where quality is

bound to be lost included initial photographing of the proof, fitting a paper print into a mechanical, re-photographing the mechanical, possibility of halo or soft outlined character, and breaking up of outlines of a negative when making a grained surface plate.

Mr. Latham said he would not presume to tell the typographers how to pull top quality proofs, particularly since examples provided him for demonstration were of such high quality.

In his conclusion, Mr. Latham referred to phototypesetting which, he stated, "eliminates many quality-robbing steps." He advised the typographers to take it seriously, adding, "If you don't get in on it, the lithographers are going to take it up themselves."

Todd Co. Appoints Three

The Todd Co., Inc., Rochester, N. Y., recently appointed three men to executive positions. Richard C. Browne now is general sales manager of the firm, and Leonard T. Thomsma is the newly appointed vice president in charge of marketing. Robert W. Geoghegan, former assistant sales manager was named general sales manager of the Todd Co. of Canada, Ltd.

Census Sees Industry Rise

An advance report from the 1954 Census of Manufactures indicates that during 1954, manufacturers in the books, publishing and printing industry shipped products valued at \$662 million, an increase of 43 percent over 1947.

Detailed figures for the industry will appear in the Census Bulletin, MC-27A, "Newspapers, Periodicals, Books, and Miscellaneous Publishing." It will be published and offered for sale at a later date by the Superintendent of Documents, U. S. Government Printing Office.

Milprint Appoints Art Director

Milprint Inc., Milwaukee lithography and packaging firm, recently appointed Glenn Sontag as its na-

tional art director. Mr. Sontag will direct the Milprint design staff of more than 100 artists. He joined Milprint eight years ago as a package designer in the Milwaukee home office art studio.

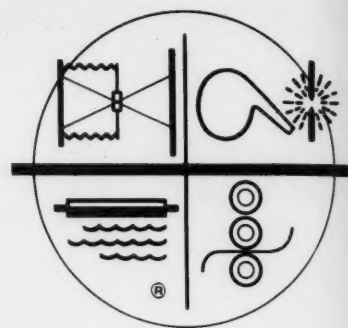
Printercraft Names Petrequin

J. A. Petrequin has been named sales manager of Buehler Printercraft Corp., Cleveland, it was announced last month by K. F. Steinglass, president. Mr. Petrequin formerly was advertising manager for Harris-Seybold Co.

Mr. Petrequin's appointment is one of the firm's steps in its expansion program. Three years ago the company established Steinglass Litho, Inc., an offset printing division.

Clawson Joins Harris-Seybold

William T. Clawson has joined Harris-Seybold Co. as promotion manager. Mr. Clawson previously was director of marketing for Miller Printing Machinery Co., Pittsburgh. In his new post Mr. Clawson will assist in industry activities and communications. He was with Miller for almost 10 years, joining the company as advertising manager and being promoted to director of marketing in 1954.



New Litho Symbol Designed

An interesting feature for the New York Lithographic Technical Progress Forum, Nov. 30-Dec. 1, at Manhattan Center, New York, is the symbol used to represent the modern lithographic process. Henry Latimer, executive director of the Metropolitan Lithographers Association, designed the symbol.

The four quadrants shown within the circle each represent a major feature of the lithographic process: photography, light sensitive chemicals, the grease (ink) and water principle, and the principle of the offset press. The old original symbol of the process was a litho crayon holder crossed over an ink roller.

Lithography Viewed Nationally

One-quarter million St. Louis Zoo Show Kits in 3-D were printed in full color, offset, by Western Printing & Lithographing Co., St. Louis, for the Friedman-Shelby Div. of International Shoe Co., St. Louis.

The kits recently were used as give-away items on the Friedman-Shelby Kiddie Spectacular, telecast nationally by the American Broadcasting Co. in August.

Testimonial Set For Wise

George Wise, president of the International Craftsmen's Association, will be honored Oct. 27 at a reception and dinner at Hotel Statler, Cleveland. All members of the graphic arts industry are invited. Reservations may be made with Richard Dawley, Ideal Roller & Mfg. Co., 14820 Detroit Ave., Cleveland, O. Tickets are \$7.50 a person.



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BOISE, IDAHO	Zellerbach Paper Company
BOSTON, MASS.	Carter Rice Storrs & Bement
	The Century Paper Co., Inc.
	Cook-Vivian-Lindenmeyr Co. Inc.
BUFFALO, N. Y.	The Alling & Cory Company
CHAMPAIGN, ILL.	Franklin-Cowan Paper Company
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CINCINNATI, OHIO	The Dism & Wing Paper Company
CLEVELAND, OHIO	The Petroquin Paper Company
	The Alling & Cory Company
COLUMBUS, OHIO	The Cincinnati Cordage & Paper Co.
CONCORD, N. H.	C. M. Rice Paper Company
DALLAS, TEXAS	Olmsted-Kirk Company
DAYTON, OHIO	Hull Paper Company
DENVER, COLO.	Carpenter Paper Co.
DES MOINES, IOWA	Western Newspaper Union
	Newhouse Paper Company
DETROIT, MICH.	Seaman-Patrick Paper Company
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LOS ANGELES, CAL.	Zellerbach Paper Company
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NEW HAVEN, CONN.	Carter Rice Storrs & Bement
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PORTLAND, MAINE	C. M. Rice Paper Company
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SAN FRANCISCO, CAL.	Zellerbach Paper Company
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SEATTLE, WASH.	Zellerbach Paper Company
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SPOKANE, WASH.	Zellerbach Paper Company
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STOCKTON, CAL.	Zellerbach Paper Company
SYRACUSE, N. Y.	The Alling & Cory Company
TACOMA, WASH.	Zellerbach Paper Company
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Warren's LUSTERKOTE provides a mirror-like glossy surface that contributes brilliance to the highlights and colors in lithographic reproduction. Now available as LUSTERKOTE ENAMEL, LUSTERKOTE COVER and BRISTOL (1 Side and 2 Sides) and LUSTERCARD.

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4. Easy to process. All of the plates for a 4 color job can be made in less than one hour.
5. Wide latitude in exposure.
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8. Ideal for all methods of proving including hand proving presses.
9. As easy to run as the Enco Negative Working Plate, and possess all of Enco's advantages on the Press.
10. Dimensionally stable.
11. Long shelf life.

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The ENCO Negative Working Aluminum Plate is made for the critical lithographer — a quality plate that faithfully reproduces fine screen halftone or linework meeting the exacting standards of the lithographic industry.

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When the plate is exposed to light, the photoresist is hardened and the unhardened areas are removed by etching, leaving a pattern of recesses which will accept ink.

The plate is then inked and the ink is transferred to the paper by the action of the printing press. The result is a high quality color proof or reproduction.

The ENCO plate is available in a variety of sizes and thicknesses, and is designed for use in the standard offset lithography process. It is the only pre-sensitized aluminum plate available in America.

For more information, contact your local ENCO distributor or write to ENCO, Inc., 1000 North 10th Street, Minneapolis, Minnesota 55412.

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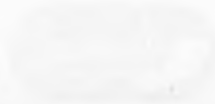
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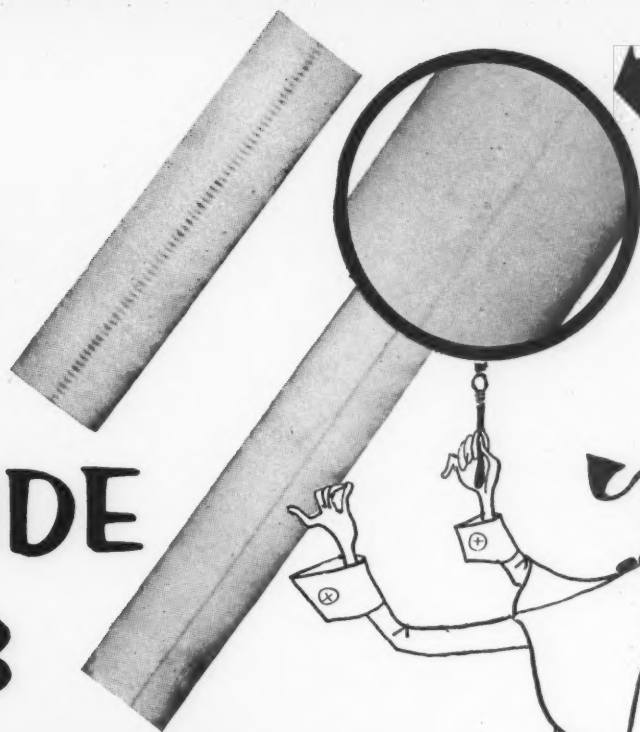
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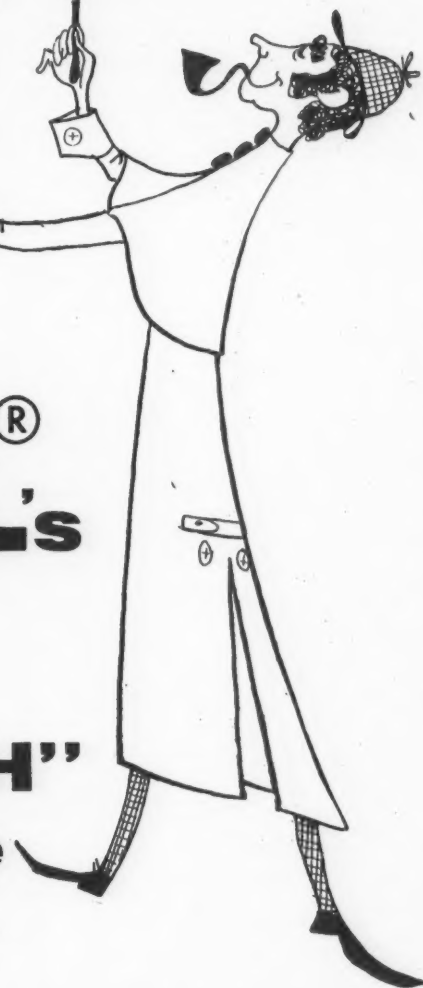
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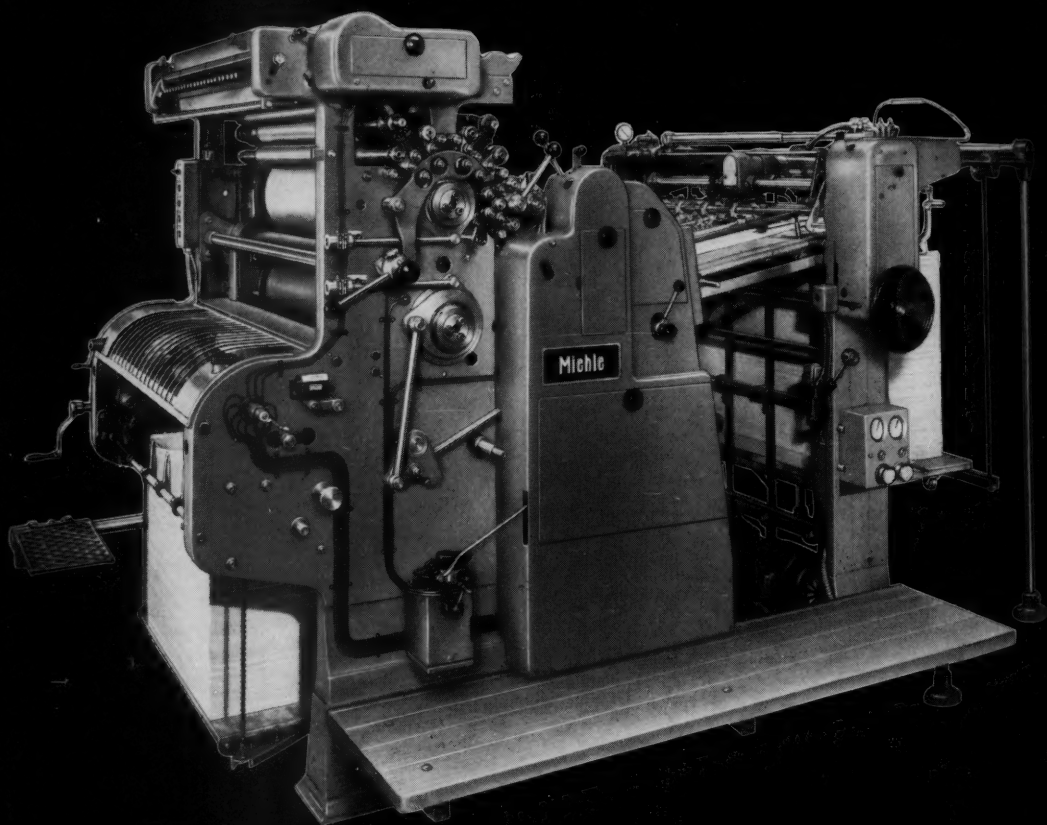
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Vile-Goller Printing Co.
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Chicago 8, Illinois

PDI Scanner Introduced In Chicago

PPRINTING DEVELOPMENTS, INC., introduced its new Chicago scanner studio to the graphic arts industry and particularly to process color printers of Chicago and other Midwest cities at open house receptions, Sept. 11-12, in the company's Midwest regional offices, at 540 N. Michigan Avenue.

Visitors saw the machine in operation and learned that for months it already has been serving many Chicago lithographers and photoengraving firms on an unpublicized basis. On display was a large sample collection of process color jobs, including pure illustrations, advertising brochures, catalogs, magazines and other materials produced by Chicago lithographers and printers, on which the new scanner had a part.

Attention of visitors was directed to PDI's line of lithure and lithen-grave offset plates now available for solving difficult production problems. Outlined, too, was the service pro-

gram set up for Midwest printers which is to be administered by experts dispatched from the Chicago office.

Company officials and representatives from the Midwest and other regions attended the "family" reception Sept. 11, while customers, representatives of the I.P.E.U. and A.L.A. and other industry members, visited the following afternoon to see the new scanner.

G. Robert Brunhouse of New York, coordinator of the scanner division's nationwide sales and service activities, headed the reception line, assisted by Thomas Bedstone, sales manager.

PDI has established a plant in San Francisco which will operate under the direction of Karl Hoffman, Pacific States representative. While the Chicago office was opening, another scanner was being packed in New York for air transport to the San Francisco plant.

Why Not Proofread the Flat?

An article titled, "Why Don't They Proofread the Flat Before Making the Plate?", by Clarence Evans, appears in the latest edition of the *Proofreader*, official journal of the Proofreaders Guild.

The article points out that a typographical error discovered in an offset plate after it is on the press is inexcusable.

According to the author, offset proofreading differs greatly from the routine that has been established through the years for letterpress printing. Rarely could a letterpress job reach the stage of press sheet for final OK without having been thoroughly proofread in all its parts at least once, usually several times. The danger point in offset is the artwork, which too many printers take for granted, even though artists, like sign painters, are notoriously poor spellers.

Mr. Evans said, "In this writer's opinion much time and labor—and that means money—could be saved by establishing a routine whereby

EVERY paste-up or "flat" would be compared carefully with the dummy, the original copy, and any silver-prints, Ozalids, or Watercotes that may bear customer's corrections, and OK'd by a professional proofreader before proceeding further."

Arthur I. Hoe Dies

Arthur I. Hoe, 76, retired director of R. Hoe & Co., Inc., New York, died Aug. 22 at his home in Ontario, Calif. Mr. Hoe was a grandnephew of Richard M. Hoe, developer of the rotary press.

Convention Set Jan. 11

The Graphic Arts Association of Illinois has set Jan. 11, 1957, as the date for the first convention of the Illinois printing industry with the Morrison Hotel in Chicago as the place. As earlier announced, the program will have a "workshop" approach, with round table discussions of production, economic, labor and other problems facing the industry in Illinois.

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What Is An Ideal Ink?

Printers occasionally ask what an ideal ink would be. We consider an ideal printing ink as one which would dry instantaneously on any stock without drying on the press, have complete resistance to rubbing, marring and scratching, not change in viscosity or tack with changes of temperature, take overprinting regardless of time between colors, take a varnish, take a glue or paste, and a number of other qualifications. Of course, this is a large order. If we cannot incorporate all these specifications in one ink, we will have to do the next best thing—that is, incorporate as many as possible for any given purpose. Some of these specifications may be replaced or made unnecessary by the use of newly designed equipment.

As we look into the Crystal Ball, we can see faint images of something very strange and new used to dry conventional or modified conventional inks instantaneously. Short-wave energy to dry inks has already failed. However, other types of electronic energy may be successful. Perhaps atomic energy will be the answer. There is much work to be done along this line. This may sound a little fantastic, but so did it sound fantastic thirty years ago at the mere mention of a man-made satellite.

A new and improved lithographic gold ink is desired—one which transfers from the rubber blanket to paper efficiently and without piling, and which has the brilliancy of letterpress printing.

It is desirable to have improved daylight fluorescent inks along the lines of better press workability.

We would like three-color process inks with the brilliancy and clarity of the pure theoretical colors of the spectrum. The goal is there, but its attainment is far off. There is a wide gap between the clarity of tone between the 100 percent transparency of light and the comparatively opaque pigment colors.

—From a talk by Dr. Maurice Adler, California Ink Co., Berkeley, Cal., before the 37th annual convention of the International Association of Printing House Craftsmen, Los Angeles, Aug. 13.

Litho Executive Dies

John C. MacKeever, 77, former head of Gerlach-Barklow Co. and United Printers & Publishers, Joliet, Ill., litho firms, died Aug. 29 in Duluth, Minn., Mr. MacKeever retired three years ago as president of the two companies which manufacture calendars and greeting cards. He was also a past president of the Illinois Manufacturers Association and

was active in other business and civic affairs.

Gartner Buys \$1-Million Prop.

Harold H. Gartner, president, Gartner Printing and Lithograph Co., Los Angeles, recently purchased property and equipment valued at \$1,000,000 from Lerner Shops of America, Inc. Involved in the transaction were three brick buildings and fixtures.



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Equipment

SUPPLIES, BULLETINS

New Molleton Sleeve Developed

Van Son Holland Ink Corp., Milneola, N. Y., has introduced a new chemically impregnated molleton sleeve. The new product will be distributed nationally under the Holland Ink tradename of "Impreg Sleeve."

"Impreg Sleeve" was developed by Norman A. Mack, research director of the Holland firm. According to Mr. Mack, the chemical treatment of the new sleeve creates a sponge-like action which enables the new molleton to retain moisture for long periods. The sleeve is prewashed to curtail lint, then chemically treated to prevent hard caking of ink particles.

Revised Cost Book Offered

A newly revised edition of *Cost and Production Tables—Offset and Duplicating Lithography* by Fred W. Hoch, now is ready for distribution. The original edition of the book was published in 1945 and entitled "Cost and Production Tables for Offset Lithographers." Since that time the field of "duplicating," with its pre-sensitized plates and other economies in production, has opened up to such an extent that it has been found necessary to devote a section of the book to that operation, according to the author.

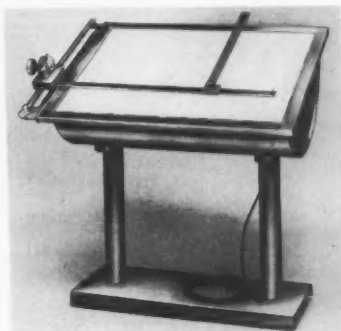
The volume contains 19 tables covering dollars and cents values and time allowances for the operations of correcting negatives (opaquing); stripping; platemaking—vacuum frame and photocomposing; tussing; makeready and running for class A, B and C work for both single color

and two color presses ranging in size from 10 x 14 to 52 x 76 inches; ink; cutting; and folding, as well as duplicating lithography in 8½ x 11 units, and full sheet sizes.

The revised book sells for \$5 a copy and may be obtained from Fred W. Hoch Associates, Inc., 461 Eighth Ave., New York 1, N. Y.

Zarkin Announces New Table

A tilt-top layout and stripping table, latest addition to the graphic arts



equipment division of Zarkin Machine Co., was announced last month by the firm.

The table, 23 x 34", tilts from a flat to a 30 degree angle, with heavy translucent glass lighted by fluorescent tubes. Optional with the table is the Lewis precision litho-ruling and stripping table attachment.

Dutro Issues Press Brochure

Orville Dutro & Son, Inc., Los Angeles, recently issued a brochure on its Speedflex offset job press. The 10 photographs which illustrate the brochure show various printing positions

along with close-ups of the printing mechanism. General specifications of the press also are listed.

Intertype Issues New Booklet

A new booklet is available from Intertype Corp. featuring comprehensive showing of newly cut News Gothic and News Gothic Condensed faces. These are duplexed with their companion bold faces in 6, 8, 10, 12 and 14 pt. sizes for use on all line casting machines.

The booklet contains matrix information and also has specimen settings which show typical applications for these useful faces.

Sun Introduces Offset Blanket

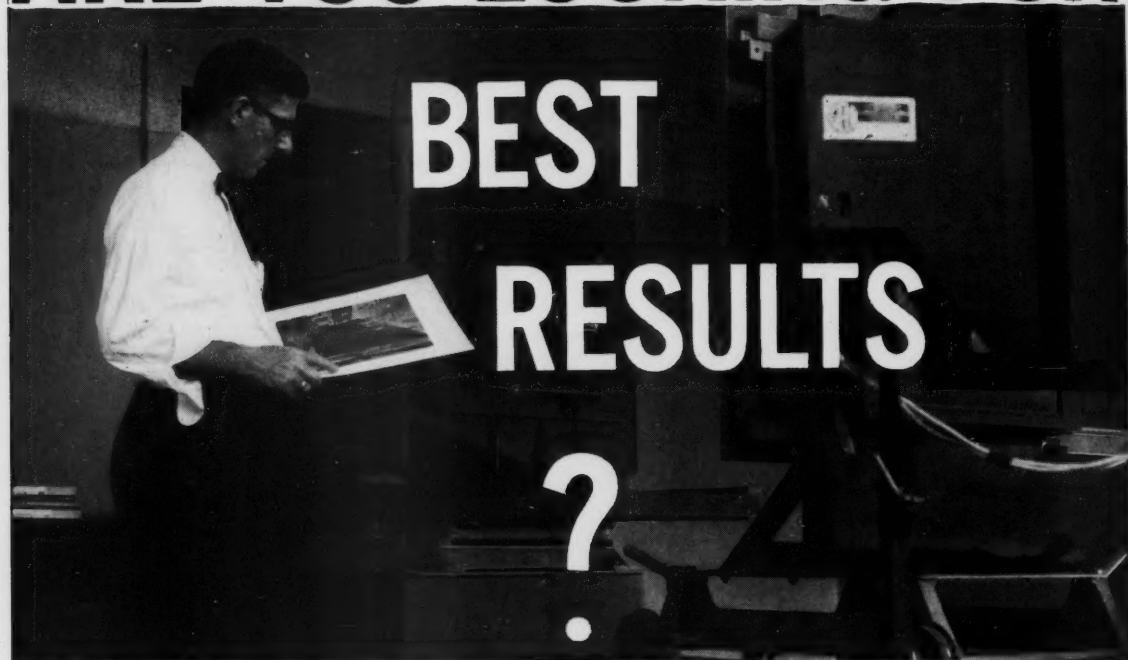
Sun Coppertone, a new offset blanket, has been announced by Sun Supply Co., division of Sun Chemical Corp. According to the manufacturer, a special protective skin is the most important characteristic of the blanket. This is achieved by curing the blanket to a finished thickness of 0.065 inch, making the surface differ from its rubber interior, just as crust differs from the inside of a biscuit after baking, they explain.

New Macbeth Line Ready

A new line of *Constant* arc high intensity, motor-controlled lamps, designed specifically for Rutherford photo-composers, has been developed by Macbeth Arc Lamp Co., Philadelphia.

Both lamps feature a full 12" trim of high intensity carbons, airflow design that permits use of optional

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The new lamps are available in two models: Type B-1C-RM for Rutherford Type RM composers, and Type B-1C-R1 for the PL composing machine.

Color-Coater Speeds Production

The Cincinnati plant of Strobridge Lithographing Co. recently installed a color-coater, making possible improvements in paint chip quality with faster production. The unit works on a reverse principle, with the roller moving against the movement of the paper. This applies a smooth, even paint film of any pre-set thickness.

Fast drying is a feature of the coater. In the time it takes for color-coated paper to move 100 ft. from roller to sheeter, the sheets are ready for cutting to desired size.

New Camera by W. A. Brown

W. A. Brown Manufacturing Co., Chicago, recently announced a new, all metal, 18 x 22" dark room camera. The new camera, which has been named the Commodore, features an automatic shutter control of the solenoid type. The Commodore is available also in sizes 24 x 24" and 31 x 31".

Anchor Announces New Cleaner

Anchor Chemical Corp., Brooklyn, has developed a new product, Film-Kleen, a non-toxic film cleaner. The new solution was formulated for safe, quick cleaning of acetate, vinyl and polystyrene film, glass, and other art preparation equipment.

Sam'l Bingham's Issues Booklet

Sam'l Bingham's Son Mfg. Co., Chicago, is distributing a booklet titled "Old Times in the Print Shop." The booklet was originally prepared for the National Graphic Arts Exposition of 1939 and was dedicated to the old-time printer for work he accomplished without the aid of modern improvements.

New Dampener Roller Drier

Lithographers can put dampener rollers into service within three minutes or less after cleaning, by using a new dryer introduced by Jomac, Inc., Philadelphia, according to an announcement by the firm. The dryer was shown to lithographers at a special breakfast at the recent NAPL convention.

The Jomac dryer consists of a nickel-plated steel roll mounted in a steel frame with a rubber doctor blade resting against it. The dampener roller to be dried is placed in guides and rests on top of the steel roll. The roll, rotated by a one-third h.p. motor, turns the dampener roll

and removes moisture from the dampener cover.

ATF Announces the Chief 15

An 11 x 15" sheet-fed press, the Chief 15, has been added to its line by American Type Founders. The press was designed and built for fast commercial production of high quality letterheads, letters, sales bulletins and promotional material. This work includes fine halftone reproduction.

ATF has completed arrangements for marketing the Chief 15, which will be manufactured in Massachusetts by the Whitin Machine Works. According to ATF, this new press has undergone three years of research.

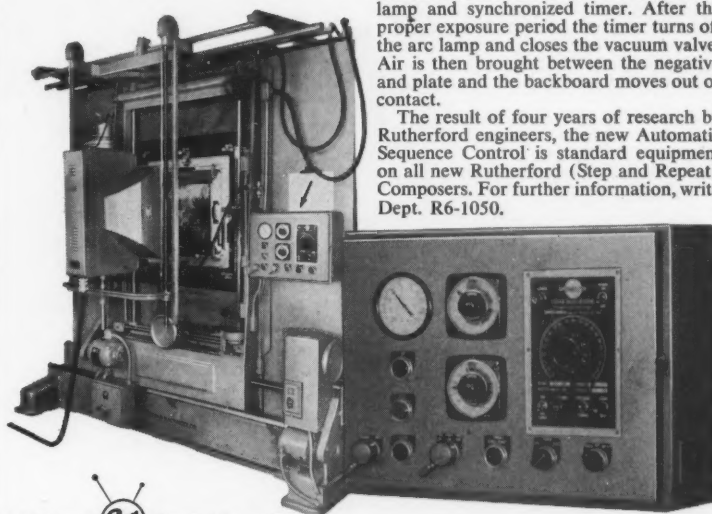
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After the correct lineal position is obtained, pressing one button sets off this sequence: the backboard moves into position and the vacuum valve actuates the arc lamp and synchronized timer. After the proper exposure period the timer turns off the arc lamp and closes the vacuum valve. Air is then brought between the negative and plate and the backboard moves out of contact.

The result of four years of research by Rutherford engineers, the new Automatic Sequence Control is standard equipment on all new Rutherford (Step and Repeat) Composers. For further information, write Dept. R6-1050.



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Aid For Mechanical Positives

Two new products, Plate Red and Camera Amber, by Serascree Corp., New York, are new aids for preparing dimensionally stable mechanical positives, dropouts, silhouettes, and vignettes.

Consisting of a light, impervious translucent red coating laminated to a window clear plastic, the Plate Red is placed over line copy and a tracing is made by cutting the outline lightly on the red coating. Dropout areas are peeled off the plastic backing, leaving a negative or positive mechanical as desired. The mechanical now may be combined with halftone or benday shading sheets and used directly as a negative in burning to plate, or sent to the camera department to secure a conventional camera negative.

Camera Amber is used in a similar manner, except that it lends itself more readily for color separation mechanicals or overlays and must be converted to camera negatives.

New Plate Coater by Lanston

The new Lanston plate coating machine, displayed for the first time at the recent NAPL convention, is available in three sizes, 68", 85", and 112". The new machine uses the principle of rotating the press plate in a position 15 degrees from the perpendicular. It has been redesigned from the old Lanston M-H Vertical, and incorporates a forced, thermostatically controlled, filtered hot air system.

Press Operated at Show

A Royal Zenith 29 offset press in operation proved one of the most popular exhibits of the recent AFL-CIO Union Label Show in Los Angeles, according to Ted Brandt, president of the Los Angeles Local, Amalgamated Lithographers of America, writing in the union's official publication.

The press, set up for the occasion by the Zarkin Machine Co., Long Island City, New York, was in full production during the show, held in Los Angeles' Pan-Pacific Auditorium. Over 200,000 persons attended the

huge affair and viewed the performance of the "29" as it produced actual two-color jobs for local charitable organizations at the rate of almost 7,000 impressions per hour.

Royal Zenith and Zarkin officials on the scene to answer lithographers' questions about the press included Royal Zenith president Jerry Reinitz, Arthur Steiner, West Coast representative, and Herbert W. Blomquist, general manager of Zarkin's graphic arts equipment division.

ATF Plans Dealer Meeting

American Type Founders will hold its first annual meeting of ATF type dealers Oct. 26 at Chicago's Conrad Hilton Hotel. Jan Van der Ploeg, sales manager of ATF's Type Division, disclosed that the meeting will bring together ATF's 40 exclusive type distributors for the first time since the company expanded its typeface distribution organization a year ago. Sales, advertising and merchandising plans will be presented.

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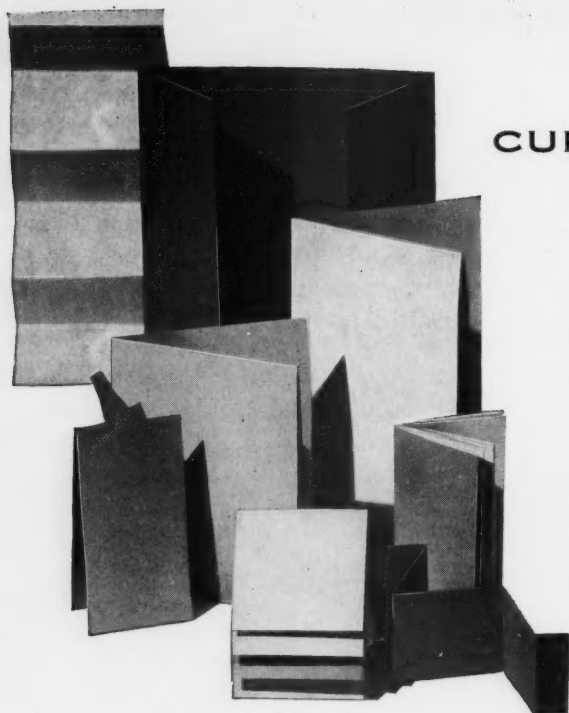
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Operation of the Offset Press

by Theodore F. Makarius

A 254-page practical reference book on operation of modern offset presses with special chapters devoted to paper conditioning, inks, varnishing, drying, storage of plates, and other subjects of interest to the offset pressman. An Ink Problem Reference Chart lists 28 of the more common problems, how to identify each, and the possible cause and remedy.

More than 50 pages of case histories are given with solution to press problems outlined. Eighteen illustrations, some in full-color in the chapter on inks, are included.

Mr. Makarius, who is with Pope & Gray, Inc., Clifton, N. J., also is the author of ML's Production Clinic.

The book is lithographed with a flexible, green, leather-like, pebble grain cover, \$10.00 per copy.

Modern Lithography
Box 31, Caldwell, N. J.

Enclosed is payment. Please send "Operation of the Offset Press."

Name

Street

City, Zone, and State

Robert R. Heywood Dies

Robert R. Heywood, 82, chairman of the board, R. R. Heywood Co., lithographers, New York, died Oct. 2 at New York Hospital. He formerly was president and chairman of the board of Sinclair & Valentine Co., ink manufacturers, and had been a director of the Lithographers National Association and the Lithographic Technical Foundation.

Surviving are a son, Robert R. Heywood, Jr., also with R. R. Heywood Co.; a daughter, three grandchildren and four great grandchildren.

Hylleberg Joins Supply Co.

Robert Hylleberg has been appointed sales representative for Roberts & Porter, Inc., in the firm's Milwaukee branch.

Kansas Litho Firm Sold

Universal American Corp., manufacturers of precision bearings and heavy equipment, recently purchased Hall Lithographing Co., Topeka, Kan. Lloyd Douglas, president of Vulcan Iron Works, Wiles-Barre, Pa., subsidiary of American Universal, has been named head of Hall Lithographing and its wholly-owned subsidiaries, Hall Printing Co. and Rays Printing Service.

Schmidt Employees Honored

Four employees of the Schmidt Lithograph Co., San Francisco, recently were honored for completing 50 years' service with the firm. They are Miss Gertrude Gilbert, B. D. Dixon, Charles Tofanelli, and Herman Mesenburg. Each employee was presented with a check for \$1,000 from the company, and a wrist watch from the employees.

McCall Corp. Expanding

McCall Corp., Dayton, O., will add another building and two presses, for a total cost of \$2,200,000. According to an announcement Oct. 2 by George Sheer, vice president, a \$1 million two-story brick and steel building will be started in November. First of the two new presses, a four-color offset, will be installed in December.

The second press is scheduled for June installation.

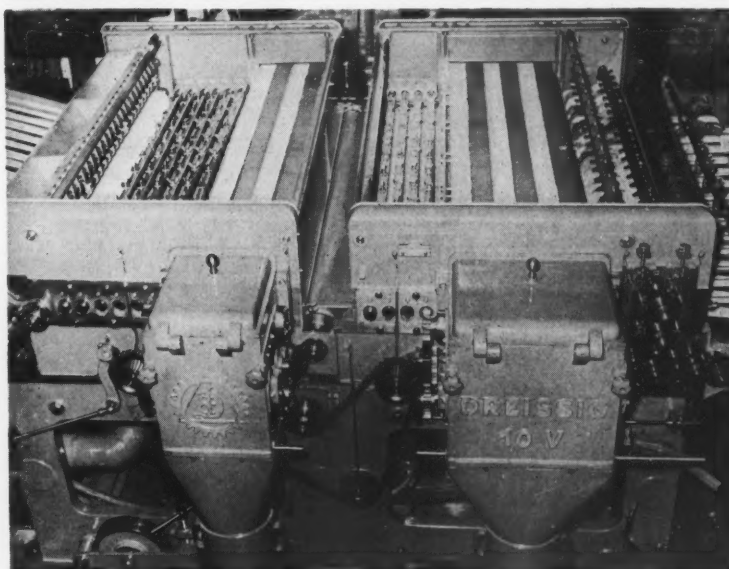
ATI Announces Buyers' Guide

A directory of the U. S.'s leading suppliers of advertising essentials and sales aids has been announced by the Advertising Trades Institute, Inc. The fall edition of ATI's Buyers' Guide will list over 100 classifications of national suppliers, including lithographers, premiums, displays, visual aids, mailing list firms, and advertising specialties and art services.

N. Y. Christmas Party

At presstime, officials of the New York Litho Club announced plans for the annual Christmas party of the group. It will be held in the Brass Rail restaurant, Park Ave., at 40th St., Dec. 17.

Tickets are priced at \$12 each. They are available from Lou Happ, at 11 Derby Court, Malvern, N. Y., and must be reserved by Nov. 17. Capacity of the restaurant is 375, so tickets are limited to one per member.



The Heavy Duty Flat Bronzing and Dusting Machine DREISSIG KOMBI 10 V

- The KOMBI 10 V combines one Bronzing Machine and one Dusting Machine on a common base. This combined machine is thus extremely space-saving, particularly for those large scale printing shops where the work is continuously going on in several shifts and where, according to experiences, two bronzers used to be connected, one behind the other, to obtain higher production rates.
- In the KOMBI 10 V type construction a space provided between the two machines prevents the bronze powder in suspension in the Bronzer from being carried over to the Dusting Machine. Ten burnishers, ten dusting bands and four dusting-off rollers account for intensive burnishing and really dependable front and back dusting. A special bronze application device, system "Muller," for which patents are pending, saves about 30 to 40 percent of bronze powder, eliminates all danger of transfer of printed parts to other sheets, and avoids whirling up of dust.
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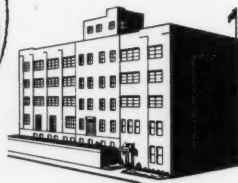
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Books and other Aids . . .

How to Prepare Art and Copy for Offset Lithography

By William J. Stevens and John McKinvan

Twelve chapters with over 125 illustrations, two- three- and four-color lithography throughout. 8½ x 11", cloth-bound, hard covers. A colorful and highly useful book for your library. Widely used in schools.

POSTPAID \$5.25

Color Chart for Dot Etching

This chart, composed of four sheets, is 22½ x 26½", and is bound at the top with a metal strip for wall hanging. The first sheet is magenta, cyan blue, process yellow and black. The second is warm red, cyan blue, process yellow and black. Number three is magenta, warm blue, process yellow and black, while the last is warm blue, warm red, process yellow and black.

Each of the four pages contains 215 color squares. Each square of color is identified, and each square is divided into four different percentage screen tints. It was produced on regular offset stock on a two-color offset press.

COMPLETE FOUR-PAGE WALL CHART — \$10

"The Single Color Offset Press"

By I. H. Sayre

Different types of offset presses are detailed; then the step by step mechanical operation and adjustments of four Harris-Seybold Co. presses — the earlier sheet-fed LSB and LSN, and the newer models with selective stream and sheet feeding, LTV (17 x 22) and LTW (21 x 28). Webendorfer presses (Chief, Little Chief and Big Chief) are discussed with complete instruction for operation, followed by a discussion of the larger presses — the EBCO (Miller Printing Machinery Co.) and the Miehle 29 and Miehle 36.

The book points up the general similarity of handling of the various presses, at the same time explaining the special characteristics of each. Primary objective of the book is to acquaint the reader with the precision and care that is required in handling offset presses, and to demonstrate how to obtain trouble-free operation.

In addition to the specific treatment on presses, there is a section on blankets, papers, inks, rollers, plates, fountain solutions, and other materials used by offset lithography.

The book is cloth bound in bright red, washable cover, 255 illustrations, printed on offset enamel stock, and sewed in 16"s so that it lays open flat. \$6.50 plus postage.

Point of Purchase Cardboard Displays

By Victor Strauss

First complete book covering the subject. Contains visuals of all kinds of displays, with a complete construction plan for each one shown. There are 226 blueprints, coded and self-explanatory. Discussion covers dummies, instruction sheets, cartons, packing and shipping. Another section covers items such as motors, flashers, rivets, hooks, rubber bands and other fasteners and devices.

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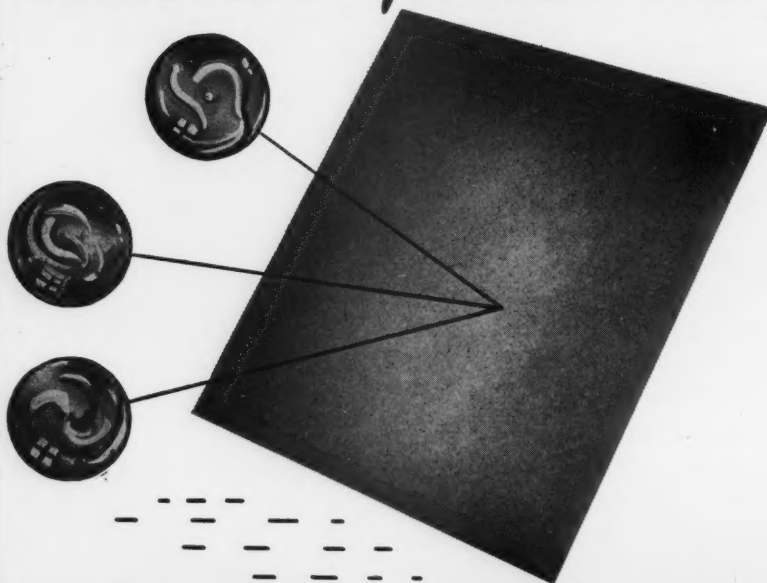
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EDITORIAL

(Continued from Page 45)

of about \$6,000,000 for the past five years. This is not a creditable total for an industry having a sales volume of over six billion dollars. It approximates about 0.1 percent of gross sales," he added. And, of that total, Time, Inc. is responsible for more than one-fourth.

Maybe a few more dollars from lithographic and other graphic arts firms, instead of being an added burden to company finances, could help reverse, in a few years, the sagging profit picture that everyone is so concerned about.★

LETTERS

(Continued from Page 43)

analysis a little further, so we would appreciate it if you would furnish us with the city and state where we could contact the Curtis Company.

John M. LaFever
Western Lithograph Co.
Wichita, Kansas

The address of the company, which manufactures the "Curtis Color Analyst," is Ted Yund Studios, 39 Spruce Street, Albany, N. Y.—Editor

NAPL QUIZ

(Continued from Page 73)

situation use a weak solution of phosphoric acid.

Q: *What are the pros and cons of smooth vs. slightly grained presensitized plates?*

A: It is generally recognized that even though presensitized plates may appear to be smooth there is actually a slight grain present. (The rougher the grain, the more latitude the pressman has).

It was announced by Mr. Stevens that all questions and answers at the technical session would be available in the proceedings of the session in a month or so. These proceedings will be distributed to the members of the National Association of Photo-Lithographers, he added.★

Preparatory Processes (Continued from Page 52)

separation exactly the same length treatment.

Q: *How can shadows be held in platemaking?*

FEDERMACK: Have the light source aimed straight at the plate, not from the side, and be careful not to have the light too close to the plate. Mr. Kaiser added that you can use dark view illumination for look-

ing at the halftone.

On presensitized plates, Mr. Kaiser warned that one should be careful in using these plates to produce color proofs because the results obtained will not always be identical. Albert Materazzi, of Litho Chemical & Supply, added from the floor that he has had experience with matches that were very good.★

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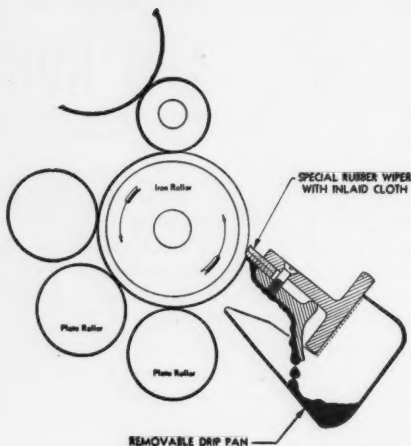


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NAPL

(Continued from Page 52)

reminded. "After the war, however, production supervisors came to be praised quite highly."

The use of conferences of supervisors in which they can exchange views on various operations in the plant, was termed highly successful by the speaker. "With these conferences they can learn about each other's problems and can get some help in solving their own."

After his talk, Mr. Mattson was asked whether a foreman who had been on the job for 15 years could be encouraged to participate wholeheartedly in a program such as he described. "It's a little bit hard to win some of these old men over at first," he said, "but experience has shown us that it definitely can be done."

Clark: Color Correction

In the final talk before the convention, Dr. Walter Clark of Eastman Kodak Co., discussed "Color Correction in Photomechanical Reproduction." Dr. Clark utilized a book of press sheets showing the appearance of black and white and three color process reproductions with various types of masks.

(He delivered a similar talk before a meeting of the Inter Society Color Council earlier in the year. This talk was reported in MODERN LITHOGRAPHY.)

Summarizing his talk, Dr. Clark said that the introduction of masking methods has done away with most of the hand work in process jobs. He explained to the audience that "when we look at a color reproduction we are really looking at a sheet of white paper through the ink that has been put on it." He added that the deficiencies of inks, as regards absorption of light, must be made up in the process.

George R. Hoover, of Joseph Hoover & Sons Co., Philadelphia, was elected president of NAPL for the coming year. Mr. Rinehart was named vice president and William Glover, Jr., of Sweeney Lithograph

Company, Inc., Bellville, N. J., was elected treasurer. Walter E. Soderstrom, Robert S. Emslie, Jr., and Frank R. Turner, Jr., continue respectively as executive vice president, secretary and accountant.

New Directors

The following were elected to three years terms on the board of directors of NAPL:

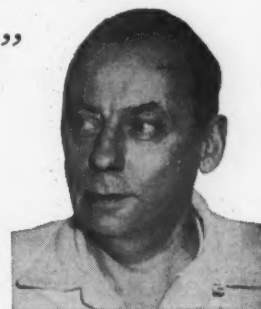
Hugh W. Ashton, Ashton-Potter Ltd., Toronto; *Curtis L. Cory*, Western Printing Co., Tulsa, Okla.; *John*

E. Dooley, Washington Planograph Co., Inc., Washington D. C.; *William H. Glover, Jr.*, Sweeney Lithograph Co., Inc., Belleville, N. J.; *George R. Hoover*, Joseph Hoover & Sons Co., Philadelphia; *Arthur T. Howard*, A. T. Howard Co., Boston; *Juan Suarez Servia*, Compania Litografica de la Habana; *Roscoe (Torchy) Torrance*, Western Printing Co., Seattle; *Penn R. Watson*, Wm. J. Keller, Inc.; *Charles R. Wood*, C. R. Wood & Associates, San Francisco.★

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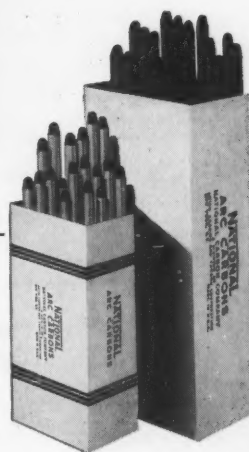


carbons are tops!"



Joseph J. Schwarz

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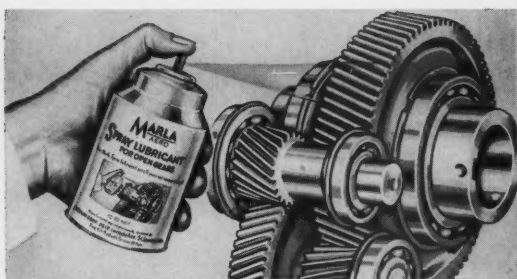
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Duplicating Presses

(Continued from Page 48)

shop on a small offset press, then graduated to a larger press.

Mr. Wilkinson, in answer to another question, said a single fountain solution can be used all day to handle a variety of plates, whether surface or deep-etch.

A wide variety of cost-accounting methods were discussed. Mr. Hart said his company works on a time basis only because hiring personnel to keep complete accounting figures would be costly and unnecessary. "Every few months," he explained, "our company reviews costs on the basis of actual production in that time." Thirty to forty lithographers attended the round table session.★

PRESENSITIZED PLATES

(Continued from Page 59)

use of a stylus. *Gramstorff*: Use a sharp needle for additions. Erasing might break through the thin plate when deleting.

(Others on the panel stated changes are possible in various ways.)

Q. Many shops like to use presensitized plates, but the plate is too thin to stay on a hand operated flat bed proof press.

Wolitzky: Plates are being made in various gauges to avoid buckle. *Harman*: Use a pressure sensitive tape along the edges of the clamp. I believe a heavier plate should be used. *Fritz*: For plates that are .008" in thickness use this technique: After clamping, drop the blanket, roll the plate flat, leave one inch to put pressure tape at trail end.

Q. How long should plates be kept?

Gramstorff: One year, and store the plates similar to film, keeping them from heat and from excessive cold.

Q. How can I stop corrosion which causes ink dot scum?

Bruno: Treatments will reduce the tendency of aluminum to corrode. Corrosion occurs when the plate is kept damp too long but it never happens on the actual platemaking.

Mr. Fritz showed an example of lithographing with a presensitized plate on a linen cloth for a book cover — a three-color job with a 20,000 run. Other panelists displayed high quality work turned out with presensitized plates.

Concluding the session, Mr. Bruno commented that many plants now can

do work which they couldn't possibly do before using presensitized plates. In some instances plants are using up to 200 of these plates a day.★

PLATEMAKING

(Continued from Page 64)

nonblinding. This type lacquer is used in the JCP line as well as many of the other good lines of deep etch chemicals.

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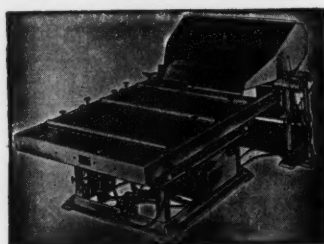
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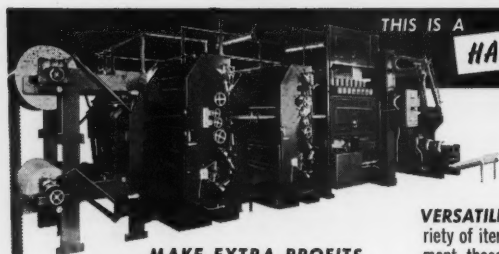
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ing water development instead of chemical development now are on the market. On certain types of polymetallic plates this water developed coating is a decided improvement.

As far as the lithographic press plate is concerned, the availability of the presensitized plates, all the different polymetallic plates, improvement in grain, coatings, lacquers, inks and exposure guides, the lithographic industry is most fortunate.★

DIE CUTTING

(Continued from Page 84)

the general procedure used with such a product.

Remove all grease from the platen with benzine and glue a piece of cardboard directly onto the platen, using a liquid fish glue which can be obtained at any hardware store. This sheet of cardboard should be about 1/6" thick. Spread a small quantity of embossing compound on it and cover it over with two sheets of tissue paper. Then, take an impression by turning the press over by hand. The impression should have force enough to bring the embossing die solidly up to the platen. Incidentally, engraved embossing dies generally are made of brass or steel and they are "female." You create the "male" part of the job when you prepare the embossing counter on the face of the platen. Now, when you take this first impression, you will force out all the composition except what goes into the engraved parts of the die. The surplus composition may be scraped from the edges and returned to the can.

If the impression is not clear and distinct, it is usually best to increase the impression, adding a little more composition if necessary and covering as before with tissue. If any of the composition should stick to the die, clean it out with a wet brush and rub the die with an oiled rag.

Let the Impression Dry

When a satisfactory impression has been obtained, allow it to dry thoroughly. The best kind of small dies will dry in 20 to 30 minutes. Large dies, with more depth to the

composition, will require more time. The deeper parts of a large die should be built up with cardboard before the composition is put on. A very small quantity of fish glue mixed with the composition will hasten drying, but may cause cracking if used for large dies. If the composition seems rather soft, remove from the can a sufficient quantity for the job, spread it out in a thin layer exposed to the air for about 15 minutes, then roll it into a ball and work it with the fingers for a minute before starting to make the counter. If it is made at night, the counter will be ready for use the next morning.

Before you start to emboss a job, make sure the counter is so hard a fingernail will make no impression on it. It is a good plan to run a few impressions on tissue paper at intervals of five to 10 minutes while the counter is drying. In making ready, take impressions on tissue paper only, because heavier stock will spoil the counter.

Scrape away the composition at the edges before it has set hard to prevent the edge of the die from leaving a mark on the stock. A top sheet of thin paper can be stretched over the counter for the gauges, or they may be fastened to strips of paper glued to the platen.

A great deal of the embossing being done today is accomplished much better and with sharper detail through the use of heat. Electric die-heaters are made for practically all types of platen presses for either printing or die-cutting and the engraved embossing dies are mounted in register on the surface plate of the heater. The heater itself is either locked up in a chase or in the case of a heater that is full-bed size, is mounted in the bed, without a chase, but is constructed to be held in position by regular chase lugs or chase latches. It should be easy to understand why heated embossing dies will bring out more detail because heat helps to shape or form the design just the same as heat is used for ironing in the home. On some of the cheaper jobs, the customer may accept the embossing as done cold but the fussy customer will demand

the use of heat to give him a beautiful result.

The modern machines available for die-cutting and embossing today are a far cry from the earliest machines. I have not touched at all on cylinder presses for cutting and creasing, but today they are built in extremely large sizes for long runs, and die-construction and make-ready procedure for the cylinder must necessarily be of a somewhat different nature than for platen presses, although the fundamental principles are similar.

As far as platens are concerned, we have many fully automatic machines today both in the small and larger sizes. There are machines that will cut, crease, print, strip away the waste, and deliver in one continuous automatic operation. There are cutting and creasing presses which do no printing but which will feed, strip away the waste, and deliver automatically at high speeds.★

PHOTO CLINIC

(Continued from Page 104)

applied only to the film area in actual use.

In addition, the film is pulled slightly into the channels, thus creating a seal very much like the blanket bead in a vacuum frame. With rows of holes, two methods of obtaining vacuum are possible. One is the vacuum chamber behind the face plate, in which air passes through all the holes in the plate. The areas not in use must be sealed off for maximum vacuum. This arrangement generally requires a pump and motor of greater capacity than one with the channels. To obtain independent control of the film areas when holes are used involves rather intricate design and construction.

Very few of the homemade film holders I have seen have been fully satisfactory. Before you proceed with your own design and construction, better check with the camera manufacturers to see if they can adapt a stock model to your camera. An improperly constructed vacuum back may result in a high film waste.★

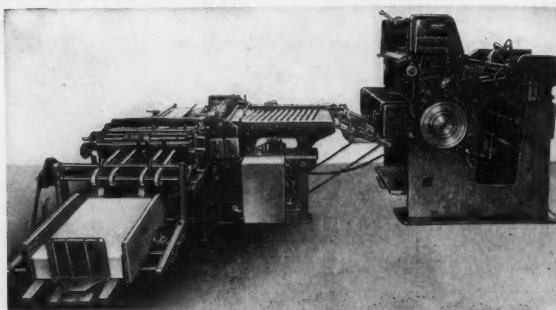
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ML

MARATHON CORP., Modesto, Cal., has installed a five-color 59" Harris offset press.

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FRANK BURKE has joined Chas. R. Wood & Associates, San Francisco lithographers.

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GENERAL PRINTING INK Div., Sun Chemical Corp., has moved its San Francisco offices to its South San Francisco plant at 24 Linden Ave.

ML

PAUL I. ROGERS, industrial engineer, has been appointed as a consultant and technical advisor by Allen Hollander Co., Inc., New York printers and manufacturers of Able Labels and other paper specialties.

ML

OTTO A. STAEHR has been appointed assistant secretary of Recording & Statistical Corp., international printers and lithographers. He will have his office at the Boston plant.

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GRAHAM PAPER Co., New Orleans, has been appointed a distributor of Greylock Ledger, one of the rag-content papers manufactured by L. L. Brown Paper Co., Adams, Mass.

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MERCURY LITHOGRAPHING CORP., Kings, N. Y., has filed articles with the office of the Secretary of State at Albany, N. Y., changing its capital stock of \$75,000 to 300 shares no par value and 2,500 shares.

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PROCESS COLOR LITHO, INC., Columbus, O., has been granted charter of incorporation, listing capital stock of 250 shares no par value.

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OFFSET SUPERINTENDENT with press-room background, take complete charge of well equipped medium sized plant (including prep. dept.) High quality color & process work. Excellent opportunity for man with executive ability. Salary commensurate with experience. State qualifications in detail. Address Box 142, c/o *Modern Lithography*.

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National Carbon Co. Dedicates New Research Laboratories



Pictured is the modern entrance to the new research laboratories, officially dedicated Sept. 18 at Parma, O., of National Carbon Co., a division of Union Carbide

and Carbon Corp. The new building contains approximately 175,000 sq. ft. of floor space and is located near the center of a 126-acre plot in suburban Cleveland.

PIA Committee Meets

The sales management committee of Printing Industry of America met in St. Louis recently at the Graphic Arts Center, to work out details for the PIA sales conference to be held in Chicago Jan. 10-11. Frank Rauchenstein of Cavanaugh Printing Co., St. Louis, is chairman.

Sydlansky Joins Lawson

Joseph F. Sydlansky has been named to the New York sales staff of the E. P. Lawson Co. He will represent the firm's line of cutters, trimmers, and drilling machines. Mr. Sydlansky formerly was associated with the Miller Printing Machinery Co., Pittsburgh.

Paper Advertising Receives A New Twist



According to Kimberly-Clark Corp., Neenah, Wisc., a recent independent survey reveals that the firm's "Accent" advertising campaign, currently appearing in regional and national graphic arts publications, has received high acceptance and recognition. Taking a sharp departure

from traditional coated paper advertising, the campaign is based on consumer merchandising ideas. While stressing paper and paper qualities of Kimberly-Clark, the advertisements feature fashion models and others from the stage, selected for their beauty.

PRESSMEN'S INK HANDBOOK

By H. J. Wolfe

272 Pages

\$4.50 in U. S. A.
\$5.00 Foreign

CONTENTS

Chapter

1. **Properties of Inks** . . . Review of physical characteristics; general types of inks; steps in manufacture of inks; definition of terms.
2. **Purchasing Printing Inks** . . . Ink requirements and specifications; "doctoring inks"; selecting your supplier; estimating ink consumption for offset work and letterpress; ink coverage chart.
3. **The Private Ink Plant** . . . Analyzing some of the misconceptions as to the advantages of operating your own ink plant; discussion of the "basic ink system."
4. **Manipulation of Ink** . . . Color matching and what the pressman can safely do to "adjust" inks; ink storage, shelf life; additions of reducer, drier, varnish, etc.; improving body.
5. **Inorganic Pigments** . . . Properties and characteristics of pigments as they affect inks; discussions of natural and manufactured mineral pigments; charts showing properties and uses of ten mineral pigments and 18 important inorganic pigments.
6. **Organic Pigments** . . . History, preparation of intermediates; charts showing properties and uses of more than 45 important organic pigments; classification of dyestuffs.
7. **Black Pigments** . . . General discussion; characteristics and manufacture; lampblack; furnace black; thermal decomposition blacks; mineral black; manganese black; graphite; iron oxide black.
8. **Printing Ink Vehicles** . . . Vegetable drying oils; linseed oil and linseed oil varnishes; lithographic varnish; chinawood or tung oil;

Chapter

- soybean, oiticica oil; vegetable semi-and non-drying oils; alkyd, fish, rosin, fatty acid, mineral oils; pitch varnishes.
9. **Driers and Drying** . . . The six methods of drying; theories of drying; paste driers, japan driers; concentrated driers; cobalt driers.
 10. **Letterpress Inks** . . . Ink classification, specification of stock; job press inks; automatic press ink; flatbed cylinder press inks; web press inks; required properties of the inks; relation of ink to stock; inks for various stocks and their requirements; halftone black inks and process inks.
 11. **Lithographic Ink** . . . Requirements and characteristics are given for lithographic inks; offset printing inks; dry offset printing inks, etc.
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 13. **New Types of Inks** . . . Thermosetting inks; synthetic litho inks; hot wax inks; aniline inks; steam-set or moisture set inks; pressure set inks; silk screen inks; metallic inks; water color inks.
 14. **Testing of Inks** . . . Equipment needed; dry color testing for strength; resistance, permanence, particle size, etc.
 15. **Ink Problems and Remedies** . . . Ink difficulties encountered in letterpress and lithographic printing are detailed, listing the symptoms, causes and suggested remedies.
- Glossary**

TEAR OFF AND MAIL

INDUSTRY PUBLICATIONS

P. O. BOX 31

CALDWELL, N. J.

Enclosed is our check for \$4.50 (Foreign and Canada \$5.00). Please send me one copy of the PRESSMEN'S INK HANDBOOK. It is understood that I may return the book within ten days for full refund.

COMPANY

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no responsibility can be assumed for errors or omissions.)

Tale Ends

TIME was when adages and proverbs were limited to needlepoint samplers hung in the dining room or the front hall. Maiden aunts and grandmothers turned out a prodigious number of them every year, bestowing them on reluctant relations every time an occasion merited a gift. Hardly a home in the 'twenties and 'thirties was without some such aphorism praising home and hearth, in a room that contained furniture carved in the worst ornate excesses of the Mid-Victorian period.

The late president of IBM is credited, if that is the word, with taking these essentially innocuous adages from the home to the bustling world of business, and soon an office or factory was not complete without an ever-present command to "think," "smile," or otherwise behave in an unaccustomed manner. Even such down-to-earth places as litho shops have been known to succumb to what the late H. L. Mencken would have termed "bunkum."

Happily for us anti-motto boys, however, a counter-movement has set in, of recent years, and now the office or shop is *declassé* that does not display at least one snide satire on the high-sounding mottos. "Think," and "sneer" are just two of many. Even now the iconoclasts are busy turning out new variations on the sacrosanct versions of old.

All of this is by way of introduction to an admirable group of epigrams that Doyle Printing and Offset Co., Inc., Washington, D. C., has sent along to the office. Most of them are in the modern, or light-hearted vein, such as "It's not that I'm hard of hearing, it's just that I don't want to listen to you," and "We used to make loads of money—acci-

dently . . . now we're losing it—scientifically!"

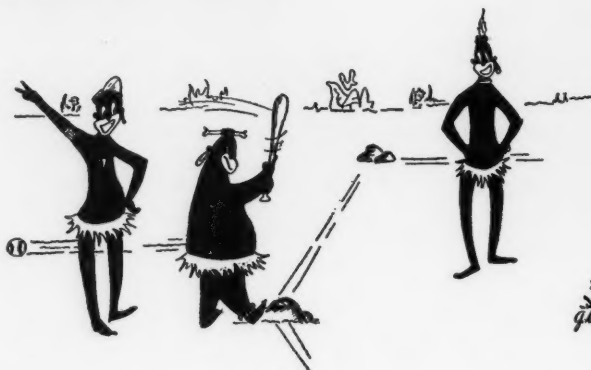
Among the more serious cards, which Doyle is using as a clever form of self-advertising, is the one reproduced above, with a sentiment derived from a statement by Ben Franklin. It's particularly appropriate to the publication field, we think, and, if we've all got to have a motto to keep in step with the times, that

might as well be it.

ML

One of the handsomest annual reports we've seen in a long while is the one recently issued by Harris-Seybold (reported in the September ML). An attractive 11 x 8½" format is employed, with four-color process used attractively. High point is a set of cleverly executed charts, in color, that have a three-dimensional effect. The whole booklet reflects the happy spirit of a company whose earnings are up.

Strike Two!



WHEN they've got you two strikes down, it's sort of hard to take your best cut. And when you're a salesman out calling on the trade, and they don't remember your company, and never heard of its product, they really have two strikes on you.

The moral of this story is that when you send your salesmen out to call on what should be live prospects, if you want them to take that big full swing and maybe knock out a sales home-run or two, see that they don't already have two strikes on them when they step up to the plate.

Pave their way in advance, with an advertising program that will make your company name and your products familiar to the prospective buyer. In the litho field, the magazine that can do the best job of presenting your sales story to the important people who make most of the purchasing decisions, is

MODERN LITHOGRAPHY

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C.2S. • ESOPUS TINTS

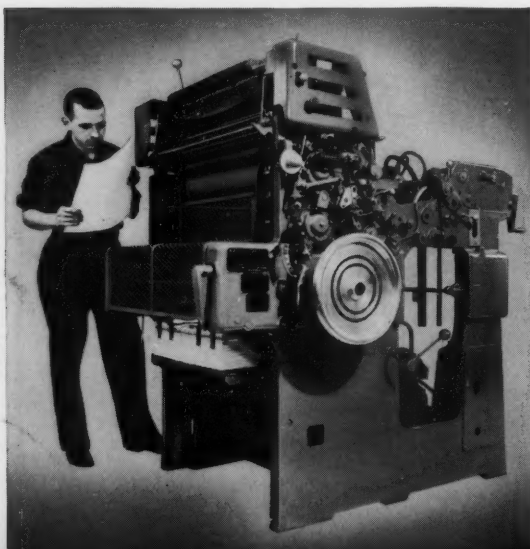
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Printers who already have the 14½ x 20½" Harris offset press have sent us supplies of press sheets. They're run-of-the-hook samples of regular commercial work turned out on this press. We've assembled the sheets into a handy folder so that you can inspect them right in your own office.

The portfolio of 14½ x 20½" press sheets is yours for the asking. Just call your local Harris-Seybold representative, or write Harris-Seybold Company, 4510 East 71st Street, Cleveland 5, Ohio.

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